



UNIVERSITY of HAWAII\*  
**WINDWARD**  
COMMUNITY COLLEGE

### **AQUA 201 The Hawai‘ian Fishpond**

**3 Credits CRN 61473- Early College Hakipu‘u**

**Monday and Wednesday 1:15 – 2:30**

**INSTRUCTOR: Rosalyn KRD Concepcion**

**EMAIL:** [rkconcep@hawaii.edu](mailto:rkconcep@hawaii.edu)

**EFFECTIVE DATE:** Fall 2023 -August 21, 2023- December 15, 2023

### **WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai‘i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko‘olau region of O‘ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.*

### **CATALOG DESCRIPTION**

An introduction into the history, development, biology and ecology, management, restoration, and future of Hawaiian fishponds. This course will study traditional Hawaiian fishponds, merging traditional knowledge with the principles of modern Western science.

### **STUDENT LEARNING OUTCOMES**

The learning outcomes for this course are:

1. Distinguish between the types of traditional Hawaiian fishponds, the history of their construction and use throughout the Hawaiian Islands, how and where they were constructed, their operation and management, their characteristics, and their biota.
2. Describe the oceanography, biology and ecology of Hawaiian fishponds.
3. Describe the basic principles of aquaculture, including pond dynamics, feeding regimes, cultivated species propagation and growth, disease management, production, harvesting and maintenance.
4. Discuss the status of Hawaiian fishponds in modern times, including their restoration and their future.

## **COURSE CONTENT**

- Basic ecological principles, especially those applying to aquatic ecosystems and fishponds.
- The types of traditional Hawaiian fishponds, the history of their construction and use throughout the Hawaiian Islands, how and where they were constructed, their operation and management (stocking, cultivation, harvesting and maintenance), their characteristics, and their biota.
- The oceanography of Hawaiian fishponds (water circulation, stratification, water chemistry and properties, sediment composition and characteristics, and biogeochemical cycles).
  - The biology of important fishpond species, especially their modes of nutrition, life cycles, and interactions with other fishpond species as well as their physical environment.
- The basic principles of aquaculture, including pond dynamics, feeding regimes, cultivated species.
- Propagation and growth, disease management, production, harvesting and maintenance.
  - The operation and functioning of the fishpond in the ahupua'a.
- The integration between traditional practices and modern aquaculture methodologies.
- Hawaiian utilization of fishpond species.
- Modern fishpond problems (disuse and natural degradation, agricultural and urban development, pollution, and invasive species).
- Hawai'i fishpond restoration: approaches, problems and possible solutions, and examples of restoration projects.
- The future of Hawaiian fishponds: whether they will become mere interesting archeological curiosities or they will represent models of sustainability for the future.

## **COURSE TASKS**

**RESEARCH PAPER.** The student will complete a formal library research report on an approved ahupua'a topic. A good research topic will cross disciplines providing scientific, historical, and cultural information. Specific details on the format of this report will be presented in class (25 points total).

**GROUP PROJECT.** The student will work with assigned groups on a video project on a topic of their choice. Specific details on the project will be presented in class (25 points total).

**QUIZZES.** The student will take a minimum of 2 quizzes (25 points each; 50 points total) administered through the Internet (Google Classroom) during specified time periods. These quizzes will address the detailed content and major concepts presented in the lectures, lecture outlines, text readings, and study guide activities. Since these quizzes may be taken using home computers connected to the Internet, students may refer to instructional resources (text, study guide, lecture notes, etc.) while taking the quizzes. However, each quiz will be timed, the student having only 20 minutes to complete.

**CLASSROOM / ONLINE DISCUSSIONS.** 100 pts

**EXAMINATIONS.** The student will take one midterm examination (50 points) and a noncumulative final examination (50 points) through the Internet (Google Classroom) during specified time periods to demonstrate understanding of information presented primarily during lectures but also including assigned readings.

A student missing an exam because of an illness or legitimate emergency may take a make-up exam as soon as possible after the student returns from the illness and as determined by the instructor. In such a circumstance, the student should make every reasonable attempt to contact the instructor before the exam period is over (or as soon as possible). While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different.

## **ASSESSMENT TASKS AND GRADING**

**The assignment of points will be according to the following protocol:**

Attendance 100 points (only allowed 2 per quarter =4)

Research Paper 25 points

Group Project 25 points

Discussions 100 points

Quizzes (2) 50 points

Midterm Examination 50 points

Final Examination 50 points

TOTAL 400 points

**Letter grades will be assigned as follows:**

A 90% or above in total points.

B 80-89.9% of total points.

C 65-79.9% of total points.

D 55-64.9% of total points.

F Below 55% of total points or informal or incomplete official withdrawal from course. I Incomplete; given at the INSTRUCTOR'S OPTION when student is unable to complete a small part of the course because of circumstances beyond his or her control. It is the STUDENT'S responsibility to make up incomplete work. Failure to satisfactorily make up incomplete work within the appropriate time period will result in a grade change for "I" to the contingency grade identified by the instructor (see catalog).

CR 65% or above in total points; the student must indicate the intent to take the course as CR/NC in writing by the end of the 10th week of classes (see catalog).

NC Below 65% of total points; this grade only available under the CR/NC option (see above and see catalog). N NOT GIVEN EXCEPT UNDER EXTREMELY RARE CIRCUMSTANCES(e.g., documented serious illness or emergency that prevents the student from officially withdrawing from the course); never used as an alternative for an "F" grade.

W Official withdrawal from the course after the third week and prior to the end of the 10th week of classes (see catalog).

Waiver of minimum requirements for specific grades may be given only in unique situations at the instructor's discretion. Students involved in academic dishonesty will receive an "F" grade for the course. Academic dishonesty is defined in WCC's college catalog.

## **LEARNING RESOURCES**

### **Textbook:**

Wyban, C.A., 1992. Tide and Current: Fishponds of Hawai'i. University of Hawai'i Press, Honolulu. 192 pp.

Handouts and selected readings from various texts will also be distributed in class or through the Internet.

## **ADDITIONAL INFORMATION**

### **Culture Principles:**

Ma ka hana ka 'ike. In working one learns.

E aloha kekahi i kekahi. Love one another.

'A'ohe hana nui ke alu 'ia. No task is too big when done together by all.

'A'ohe pau ka 'ike i ka hālau ho'okahi. All knowledge is not learned in just one school.

### **Student Expectations:**

The student is expected to attend and actively participate in all course lectures and activities, and complete all assignments, quizzes and examinations on time.

The student is expected to be prepared in advance before the class sessions. Being prepared includes the following: having read text materials (e.g., textbook readings and other resources) assigned for that day's activities and bringing required work materials (e.g., textbook, handouts, writing supplies, etc.) to the session. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced ahead of time in class. It is the student's responsibility to be informed of these changes. It is the student's responsibility to be informed about deadlines critical to making registration changes (e.g., last day of erase period and last day for making an official withdrawal). When difficult concepts and detailed information are presented, it is the student's responsibility to take the appropriate steps to learn and understand these concepts and information.

Courses at WCC generally require two to three hours of independent private study time for each hour in class. It is the student's responsibility to allocate the appropriate time needed for study in an environment conducive to quality study. The student must budget time efficiently and be realistic about all personal and professional commitments that consume time.

Students are expected to participate in all lecture activities and complete all course assignments on time.

The student will not succeed in this class without taking careful lecture notes and reading the corresponding material in the assigned readings. As soon as possible (best if done on the same day), the student should copy over these lecture notes filling in gaps and missing information by referring to the textbook and other resources provided. The student should carefully review these rewritten lecture notes as often as possible.

The student should do all of the recommended study guide activities and review all of the Internet resource materials provided.

Students are recommended to establish study groups and study together. The students in these groups may test each other's knowledge and understanding of the information. They may also take turns teaching each other.

The student should ask the instructor to explain the things that the student does not understand.

The instructor is happy to meet with students by appointment to offer any assistance necessary, just email [hinano.rey@hawaii.edu](mailto:hinano.rey@hawaii.edu).

All knowledge is not learning is one school so please do utilize a variety of community resources Family, Friends, Acquaintances.

**Requirements Satisfied by this class:**

May partially satisfy requirements for the University of Hawai‘i Marine Option Program Certificate as a marine-related elective.

May partially satisfy subject certificate in Ahupua‘a Systems: Indigenous Resource management and Food Production.

Serves the College’s general education requirements as DB (biological science diversification requirement) and DY (natural science laboratory requirement).

**DISABILITIES ACCOMMODATIONS**

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, [royinouy@hawaii.edu](mailto:royinouy@hawaii.edu), or you may stop by Hale Kāko‘o 106 for more information.

**SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)**

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Madoka (Doka) Kumagai, Confidential Advocate

Phone: (808) 348-0663 (cellular)

Phone: (808) 956-6084 (office)

Email: kumagaim@hawaii.edu

*\*confidentiality is limited*

Desrae Kahale, Mental Health Counselor & Confidential Resource

Phone: (808) 235-7393

Email: dkahale3@hawaii.edu

Office: Hale Kāko‘o 101

Karla K. Silva-Park, Title IX Coordinator

Phone: (808) 235-7468

Email: karlas@hawaii.edu

Office: Hale ‘Ākoakoa 220

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University’s Title IX resources and the University’s Policy, Interim EP 1.204, go to [manoa.hawaii.edu/titleix/](https://manoa.hawaii.edu/titleix/)

### **ALTERNATE CONTACT INFORMATION**

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alaka‘i 121
- Phone: (808) 235-7422