



STATEWIDE WASTEWATER OPERATOR TRAINING CENTER
WATER RESOURCES RESEARCH CENTER, UNIVERSITY OF HAWAII
HONOLULU, HAWAII



TRAINING SESSION ANNOUNCEMENT
317 FUNDAMENTALS OF BIOLOGY AND CHEMISTRY

County: County of Hawaii - Kona
Location: Hawaii Water Service Company Baseyard
1 Quarry Road, Waikoloa HI
Dates: **September 26 - 27, 2018**
Times: 8:00 a.m. – 11:00 a.m.
Lunch (11:00 a.m. – 12:00 p.m.)
12:00 p.m. – 3:00 p.m.
Audience: Operators and Maintenance Personnel
Educational Point: 1.0 CEU
Instructor: Ron Hay
Prerequisite: NA

COURSE DESCRIPTION

This training program is designed to prepare operators to understand the chemical and biological basis of various treatment processes such as chemical addition, disinfection, chemical odor control, activated sludge, biological nutrient removal, and aerobic/anaerobic digestion. Part 1 covers the fundamentals of chemistry such as stoichiometry, pH, chemical equilibrium, Henry's Law, coagulation, precipitation and neutralization. Part 2 covers the fundamentals of biology such as types of microorganisms, cell composition, molecular tools, metabolism, nutrient requirements, bacteria yield, stoichiometry, growth kinetics, and aerobic/anoxic/anaerobic reactions. biological phosphorus removal will be covered in terms of basic principles of luxury uptake of phosphorus, start-up, operation, and maintenance of different types of systems. Part 3 is a brief overview of chemical and biological treatment processes in wastewater treatment plants.

REGISTRATION

1. County Wastewater Treatment Plant Personnel: **TUITION: Free**
Please submit an application form to your supervisor for approval and then fax/email to the Statewide Wastewater Training Center.

2. All Other Non-Municipal and Non-Wastewater Employees: **TUITION: \$110**
Please mail application form and tuition directly to the Statewide Wastewater Training Center. Check payable to: RCUH.

Mail to: Statewide Wastewater Operator Training Center
University of Hawaii, water Resources Research Center
2540 Dole Street, Holmes Hall 283
Honolulu, Hawaii 96822

Fax: 808-956-5014 Email: uhwwtrainingcenter@gmail.com

Deadline: Sept 21, 2018

EQUAL OPPORTUNITY

Any disabled person requiring special needs will be accommodated. Any disabled person requiring special assistance should contact the Administrator at 956-7298 or uhwwtrainingcenter@gmail.com.