Course Title
Basics of Water Resources: Groundwater Hydrology (RV-7594)

Course Length:
1 Hour

Course Description
This course covers the fundamentals of water supply hydrology. From the hydrologic cycle to the nature and character of groundwater as it goes from recharge zones to discharge points, you get the basic concepts and terminology in a clear and easy-to-understand form.

Course Objectives
After successfully completing this course, you will be able to:

- Describe the hydrologic cycle and how it replenishes the water supply
- Discuss the source, movement, and character of groundwater
- List some of the sources of impurities in the groundwater supply
- Recite the basic vocabulary of water supply hydrology

Course Outline

Introduction – 5 minutes
Course Overview
Objectives

The Language of Hydrology – 25 minutes
Aquifer
Leachate
Recharge
Transpiration

The Hydrologic Cycle – 25 minutes
Evaporation
Transpiration
Precipitation
Infiltration

Conclusion – 5 minutes
Summary and Implications

Method of attendance monitoring and verification
Courses are developed with interactivity as a key component in its development. Vector Solution's 'rule of thumb' is to insert an activity every 3 to 5 minutes or 500 to 800 words of text. We offer a variety of activities through the coursework to keep the user involved and requiring knowledge of the course materials being reviewed in order to move forward.

Users sign into an account with a unique User Name and Password. We request that a user agree to an affidavit stating that they are the owner of the account before proceeding to the exam. Course completion is measured by passing the exam with a minimum score of 75%.

Students are notified at the beginning of the course that they are required to spend 50 minutes per credit hour in the course in order to receive an accreditation certificate. The LMS will not allow a certificate to be issued or reflect course completion until the time requirement is met by the user.

We monitor required student participation in the course by logging and tracking the date and time a student enters a course, tracking activity during the course, and recording the date and time they complete the exam with a required passing score. If our learning management system detects 13-minutes of inactivity, a pop-up appears alerting the student that they must verify their presence or the session times out and the course closes.

Donna Rona

A coastal engineer with over 36 years experience in coastal, marine and environmental engineering, Dr. Rona is a licensed Professional Engineer in Mechanical Engineering. Combining a strong background in physics and earth sciences with extensive field experience in engineering, she has enjoyed a diverse career as a practicing engineer and consultant. Earning a BS in Ocean Engineering from Florida Atlantic University and a MS in Mechanical Engineering from the University of Miami, she has also continued to participate in engineering and science education as both adjunct faculty and guest lecturer at several universities, later branching out to earn a certificate in Online Teaching from the University of California.

Dr. Rona is an experienced teacher and communicator. Author of professional journal papers, trade magazine articles and the book Environmental Permits (published by Van Nostrand Reinhold), she has served as editor of technical journals, taught graduate courses in engineering, and has served as a business communications consultant. She has authored over 40 technical courses currently offered online. Working with legislators, technical experts, and businesses, she has also developed skills and expertise in negotiation and arbitration.
Dr. Rona, an advocate of lifelong education, has also earned multiple advanced degrees in integrative medicine, including the Doctor of Naturopathy degree.