

Septic Tanks

Module Perspective

1. What is the topic?
 2. Who is (are) the audience(s)?
 3. What is the course goal?
 4. What are the learning objectives?
 5. What are you trying to cover?
 6. How do you plan to do this?
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1. This module describes the history, materials of construction, and the physical, chemical, and biological processes that take place within the septic tank. It emphasizes that it is a very cost efficient and energy free reactor and absolutely is a necessary part of small scale wastewater treatment systems. It accomplishes approximately fifty percent of the ultimate treatment without which downstream treatment schemes most certainly would fail.
 2. It is intended for senior civil engineering and environmental health students who have previously completed an introductory course in environmental engineering.
 3. To make students aware that the much maligned septic tank is actually a very efficient and energy free unit that provides the first and very important pretreatment of the wastewater in small scale wastewater treatment systems.
 4. To produce students who have a sound fundamental knowledge about the physical, chemical, and biological processes that take place within the septic tank. To inform them about the capability of the septic tank to renovate household wastewater and to inspire them to realize that it is the most important treatment unit in the small scale wastewater treatment system.
 5. The history, materials of construction, sizing, processes within the septic tank, sedimentation, theory, compartmentation, biological decomposition, aerobic decomposition, anaerobic decomposition, solid accumulation rate, septage pumping intervals, garbage grinders, buoyancy, effluent filters and screens, and additives.
 6. The method of delivery will depend upon the instructor's past experience and teaching method preference. Most likely the standard lecture method using audio-visual aids, such as overhead projector and Power Point.