

Students Learning Outcome and Assessment Plan

Department/program: Fire Technology

Date: August 30, 2008

Course title/number: Fire Ground Hydraulics

Participating Faculty: CFTDA

Identified Student Learning Outcomes:

Upon successful completion of this course, the student will be able to:

1. Identify constants and variables in hydraulic formulae.
2. Perform mental calculation of hydraulics problem.
3. Define friction loss and factors that influence friction loss
4. Identify water resources and their distribution systems
5. Demonstrate critical thinking through hydraulic problem solving activities and simulations

Types of Assessment to be used:

SLO #1	Assessment Instrument(s)	Assessment Example:	Assessment Criteria
Identify constants and variables in hydraulic formulae.	Written quizzes, matching tests, written lists for the purposes of identifying hydraulic equations and hydraulic formulae.	Select a quiz or exam within the instructional period that focuses on hydraulic applications. Measure the results against assessment criteria.	Success is achieved if 90% of students achieve the student learning outcome with a score of 80% or higher during the assigned "assessment" activity. Learning outcome is not achieved if these criteria are not met.

SLO #2	Assessment Instrument(s)	Assessment Example:	Assessment Criteria
Perform mental calculation of hydraulics problem.	Verbal quizzes to assess the students' ability to calculate and answer problems.	Maintain log or diary of student participation and answers. Measure the results against assessment criteria.	Success is achieved if 90% of students achieve the student learning outcome with a score of 80% or higher during the assigned "assessment" activity. Learning outcome is not achieved if these criteria are not met.

SLO #3	Assessment Instrument(s)	Assessment Example:	Assessment Criteria
Define friction loss and factors that influence friction loss.	Written work such as essays and student workbooks to identify friction loss and associated hydraulic mathematical problems.	Select a written assignment within the instructional period that demonstrates the application of formulae and variables associated with calculating hydraulics problems. Measure the results against assessment criteria.	Success is achieved if 90% of students achieve the student learning outcome with a score of 80% or higher during the assigned "assessment" activity. Learning outcome is not achieved if these criteria are not met.

SLO #4	Assessment Instrument(s)	Assessment Example:	Assessment Criteria
Identify water resources and their distribution systems	Written quizzes, matching tests, written lists for the purposes of identifying water resources and distribution systems.	Select a quiz or exam within the instructional period that focuses on water distribution systems. Measure the results against assessment criteria.	Success is achieved if 90% of students achieve the student learning outcome with a score of 80% or higher during the assigned "assessment" activity. Learning outcome is not achieved if these criteria are not met.

SLO #5	Assessment Instrument(s)	Assessment Example:	Assessment Criteria
Demonstrate critical thinking through hydraulic problem solving activities and simulations	Written quizzes and tests designed to measure the students' ability to select and apply the appropriate formula to problems during simulations and similar activities.	Select a quiz or exam within the instructional period that focuses on the application of formula to solve simulated hydraulic problems. Measure the results against assessment criteria.	Success is achieved if 90% of students achieve the student learning outcome with a score of 80% or higher during the assigned "assessment" activity. Learning outcome is not achieved if these criteria are not met.