Objective 1) Ability to apply knowledge of mathematics, science, and engineering

Outcomes
1. Apply basic fluid mechanics principles in the analysis and design of pipe flow.

How to demonstrate accomplishment of this outcome:
   1) Test problems (class average above 70 on specific problems)

Objective 2) Ability to identify, formulate, and solve engineering problems

Outcomes
1. An ability to solve pipe network problems
2. Compute basic groundwater calculations

Assignments that demonstrate accomplishment of this outcome:
   1) Multiple test problems (class average above 70 percent on specific problems)

Objective 3) Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

Outcomes
1. design/size hydraulic components including pumps and culverts

Assignments that demonstrate accomplishment of this outcome:
   1) Test problems (class average above 70 percent on specific problems)

Objective 4) Ability to use techniques, skills, and modern engineering tools necessary for engineering

Outcomes
1. An ability to solve pipe network problems utilize spreadsheets and modeling software to solve hydraulic engineering properties.

Assignments that demonstrate accomplishment of this outcome:
   1) Special homework problem (class average above 70 percent)