

CEE3430 Engineering Hydrology

Homework 10. Infiltration and TOPMODEL

Date: 3/28/11

Due: 4/6/11

Learning Objectives.

- Be able to calculate infiltration, infiltration capacity and runoff rates using the methods described in the Rainfall Runoff Processes workbook chapter 5.
 - Be able to describe the topographic wetness index used in TOPMODEL. (Rainfall Runoff Processes workbook chapter 6)
 - Be able to use TOPMODEL principles to calculate soil moisture deficit and saturated areas as a function of wetness index and use this information in the calculation of runoff. (Rainfall Runoff Processes workbook chapter 6)
1. Work through the material in **chapter 5** of the online Rainfall Runoff Processes module at <http://www.engineering.usu.edu/dtarb/rrp.html> and do the quiz at the end.
 2. Work through the material in **chapter 6** of the online Rainfall Runoff Processes module at <http://www.engineering.usu.edu/dtarb/rrp.html> and do the quiz at the end.

There is a final exam at the end of the online Rainfall Runoff Processes module. This is **optional**, meaning that I will not check your doing of it or use your doing of it towards your homework grade. It is repetitive of questions you have already done in the chapters. Some of you like repetition to reinforce your learning, while others do not. Doing this final exam may be good preparation for test 2 that is coming up.

You do not need to actually hand anything in on this homework. I can view your results in this system and will verify your work and assign a grade based on the scores the system gives you. You may do end of chapter quizzes multiple times. I will use the highest score you get by the due date.