

CE 717 RIVER MECHANICS

Pierre Y. Julien –*Spring 2022*

Homework # 4 – Chapters 13 and 14, due May 5

Problem # 1 (10%) *Local scour*

Solve Problem 14.3.

Problem # 2 (10%) *Pier scour*

Solve Problem 14.9.

Problem # 3 (10%) *Dissolved oxygen*

Solve Problem 13.7.

Problem # 4 (10%) *Aquatic habitat*

Solve Problem 13.5.

Problem # 5 (10%) *Guest lecture*

Write half a page describing what you learned from Dr. Baird's lecture.

Problem # 6 (50%) *Team Power Point*

Prepare a 20 slide ppt presentation on the following topic:

Anderson - Wittmershaus	– Retaining walls or sheet piles
Corsi - Rasmussen	– Armoring or meandering
Doster - Pugh	– River computer models 1D or 2D
Maddocks - Mobley	– Braiding or tectonic impact on rivers

Your ppt file can include several of the following: basic concepts, a survey list of methods, sketches, theory, equations, calculation methods and examples, simulation diagrams, case study, maps, photos from the web, references, web links, etc. It must also include a slide for introduction and conclusion.

You can look at the examples on the class web page, but your presentation needs to be unique and original. The maximum length of your presentation is 20 slides.

You are not required to present your work to the class. The deliverable is your ppt file which will be posted on the web alongside the work of the students in past years. The grade for the ppt file will be the same for both team members.
