Spring 2019

CEVE 498/898 – River Hydraulics and Sediment Transport

Instructor: Dr. Junke (Drinker) Guo, Dept. Civil Eng., PKI 204D
Phone: 554-3873, E-mail: jguo2@unl.edu

When: MW 3:00 pm – 4:15 pm
Where: PKI 160
Office hour: MTWR 3:45 – 5:00 PM

Prerequisites: CIVE 310


Objectives: Apply hydraulic principles to river flow and sediment transport, and learn analysis skills of erosion, transport, and sedimentation of soil particles.

Topics:
1. River hydraulics (shear stress, velocity profile, discharge)
2. Sediment transport (settling velocity, sediment initiation, bedload, suspended load, total load, and reservoir sedimentation)
3. Local scour around hydraulic structures

Outcomes: This course is contributing towards your education as follows:
1. Understand principles of mathematics, science and engineering.
2. Use appropriate modern techniques, skills and tools.
3. Communicate technically and effectively.
4. Understand the impact of engineering on global and societal issues.
5. Have knowledge of contemporary issues.

Computer Usage: Spreadsheets or MatLab

Final Grades:
97-100 A+, 93-96 A, 90-92 A-
87-89 B+, 83-86 B, 80-82 B-
77-79 C+, 73-76 C, 70-72 C-
67-69 D+, 63-66 D, 60-62 D-, < 60 F

Grade Breakdown: Attendance 20%
Homework 80%

Homework: 3 homework sets (mini projects) will be assigned

Final: No final exam

Note: Dr. Guo reserves the right to adjust the grading scale according to each exam.