

CIVE 413 ENVIRONMENTAL RIVER MECHANICS

Spring 2008

Class: Welcome to CIVE 413 03(3-0-0) Environmental River Mechanics

Instructor: Pierre Y. Julien, Professor of Civil and Environmental Engineering
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Prerequisites: CE 300 – Undergraduate Fluid Mechanics

Description: Characteristics of the river environment, fluvial morphology and river system dynamics and response.

Topics: Introduction to Fluvial Systems
Upland Erosion and Sediment Sources
River Morphology
River Hydraulics
Sediment Transport
Channel Stability
River System Dynamics
River Response
Bank Stability
River Stabilization
River Environment
Aquatic Habitat

Lectures: Tuesday & Thursday, 9:30-10:45 am, Clark Room C 363

Optional Text: Richardson et al.
“Highways in the River Environment”
FHWA Training and Design manual

Office Hours: TDB
Afternoons at the ERC B-205

Web-page: The course’s web page is
http://www.engr.colostate.edu/~pierre/ce_old/classes/index.html

Evaluation: Quizzes 10%
Mid-terms Feb 28 and April 10 50%
Final Exam 40%