INTRODUCTION

LESSON 1
LEARNING OUTCOMES

• Introduce participants and instructors
• Establish ground rules
• Outline course goals and objectives
• Outline course schedule
COURSE GOALS

• Describe strategies for developing a plan of action for a scour critical bridge
• Propose countermeasures for stream instability and scour problems
COURSE GOALS

• Identify countermeasures for bridge scour and stream instability using HEC-23 countermeasures matrix

• Design selected countermeasures with HEC-23 design guidelines
LEARNING OUTCOMES

• Given a stream instability and/or bridge scour problem, select appropriate countermeasures to correct the problem(s)

• Apply hydraulic analysis techniques to countermeasure design
LEARNING OUTCOMES

• Describe the advantages and disadvantages of biotechnical engineering techniques

• Describe a range of alternatives to conventional riprap and filter techniques and compare their application for local scour protection
LEARNING OUTCOMES

• Describe strategies for developing a Plan of Action for correcting stream instability and scour problems considering a range of countermeasure options

• Design channel instability and bridge scour countermeasures for specific stream instability or scour problems
LEARNING OUTCOMES

• Describe other countermeasures for stream instability and scour and evaluate their performance

• Given a scour critical bridge, select and design a monitoring program to reduce the risk from scour
COURSE SCHEDULE

- Lesson sequence
- Breaks
- Ground rules
CSU VIDEO

SCOUR AT BRIDGES
END OF COURSE EVALUATION

- IACET requirement
- Basis for CEU’s
- Objective test
- Passing score (70)