

MONDAY, MAY 14, 2012

*(Workshop begins at 8:00 a.m.
and ends at 4:30 p.m.)*

PART A: TIMBER BRIDGES

INTRODUCTION

- Terminology
- Materials
- Components
- Loadings

WOOD MECHANICS

- Properties of wood
- Behavior of wood
- Wood deterioration
- Species and grades
- Wood connectors

LOAD RATING

**BRIDGE INSPECTION
METHODS**

- Visual
- Non-destructive testing

CEU credits are available for those completing the course. All attendees who successfully finish the course receive a certificate of completion.

TUESDAY, MAY 15, 2012

*(Workshop begins at 8:00 a.m.
and ends at 4:30 p.m.)*

**PART A: TIMBER BRIDGES
(CON'T)**

BRIDGE INSPECTION

- Organization
- Records
- Frequency
- Deck/Timber
- Substructure
- Details

**MAINTENANCE &
REHABILITATION**

- Deck, Open/Ballast
- Walkways/Railings
- Stringers
- Caps
- Piles and Posts
- Substructure

PART B: STEEL BRIDGES

INTRODUCTION

- Terminology
- Materials
- Components
- Loadings

PROPERTIES OF STEEL

LOADS AND RATING

WEDNESDAY, MAY 16, 2012

*(Workshop begins at 8:00 a.m.
and ends at 3:00 p.m.)*

**PART B: STEEL BRIDGES
(CON'T)**

FATIGUE AND CORROSION

FASTENERS

**BRIDGE COMPONENTS
AND TYPES**

- Decks
- Rolled Beam Bridges
- Deck Plate Girders
- Floor Systems
- Through Plate Girders
- Trusses

BRIDGE INSPECTION

- Frequency
- Substructure
- Details
- Piers & Abutments

**MAINTENANCE &
REHABILITATION**

Call 865-974-5255 if you are interested in hosting the course in your area.



Timber & Steel RailRoad Bridges

**May 14-16, 2012
Knoxville, TN**

Training Workshop
Sponsored by
The Center for Transportation Research
University of Tennessee



OBJECTIVES AND BENEFITS

- Present and describe bridge terminology and functions of bridge components
- Present bridge inspection procedures and a format for documentation of the inspection process.
- Acquire an understanding of the basic maintenance and rehabilitation practices.

Date & Location

May 14-16, 2012, Knoxville, TN

Classes will be held on the campus of the University of Tennessee, Knoxville, TN. Directions to the classroom will be provided upon enrollment. For additional information, please call 865-974-5255.

WHO SHOULD ATTEND?

Persons having bridge inspection and maintenance responsibilities at shortline, regional, and Class I railroads; railroad contractors and consultants; and state and local government officials associated with railroad operation, finance, and regulation will find this workshop beneficial.

Fee

The course registration of \$495 includes course materials and refreshments. Attendees are responsible for meals and lodging. Registrants will be provided information on available lodging in the course vicinity.

Cancellation

If you cannot attend, notification by April 30, 2012 is required for full refund. Credit will be given for future courses for those unable to make the cancellation deadline. There will be no refunds for no-shows. You may enroll a substitute at any time before the course starts.

Limited Enrollment

To insure that the facilities will comfortably accommodate all participants, this workshop will be limited to 30 participants.

Instructors

Richard M. Bennett, Ph.D., P.E.

Richard M. Bennett is a Professor of Civil and Environmental Engineering and Director of Engineering Fundamentals at the University of Tennessee, Knoxville, where his specialty area is structural engineering. He has won numerous teaching awards, and has been teaching timber and steel bridge inspection for 18 years. He works closely with the Tennessee Forest Products Center, particularly in the area of nondestructive evaluation of wood. Dr. Bennett is a member of American Society of Civil Engineers. He is a licensed professional engineer in Tennessee.

David B. Clarke, Ph.D., P.E.

Dr. Clarke, is currently Director of both the Tennessee Transportation Assistance Program (TTAP) and the Center for Transportation Research. He is a research associate professor in the Department of Civil and Environmental Engineering at the University of Tennessee. His 30 years of experience encompass a variety of railroad related design, inspection, research and education. He has taught railway related courses including this one, to college students and professionals since 1990. As a practicing civil engineer, Dr. Clarke performs railroad bridge inspections and develops plans and specifications for bridge rehabilitation or repair. Dr. Clarke is a licensed civil engineer in South Carolina and Tennessee and is active in AREMA, ASCE, and TRB.

Mail or fax registration to:

Rail Training (Attn: Diana Webb)

Center for Transportation Research

The University of Tennessee

309 Conference Center

Knoxville, TN 37996-4133

Tel: (865) 974-5255 Fax: (865) 974-3889

Timber & Steel Railroad Bridges

Knoxville, TN • May 14-16, 2012

Name _____

Title _____

Organization _____

Address _____

City _____

State _____ Zip _____

Tel _____ Fax _____

Email _____

Payment of \$495 by (choose one):

___ Check payable to The University of Tennessee

___ Bill/Invoice my organization

___ Credit Card: ___ Visa ___ MasterCard

Cardholder's Name

Cardholder's Signature

Card Number

Expires