Transportation Curriculum Coordination Council (TCCC)

Addressing Challenges in Construction and Maintenance Workforce and Quality
Topics of Discussion

• What is the TCCC
• Workforce development challenges
• TCCC Past - Present - Future
A public/private partnership, established in 2000, that is assembling a curriculum aimed at producing the highly-skilled transportation workforce to meet our mobility demands.
Partnership Effort

- Regional certification groups
- AASHTO subcommittees
- Local transportation agencies
- FHWA / NHI
- Industry groups
- Academia
TCCC Mission

- Coordinate training and certification
- Establish a national core curriculum
- Develop training materials
- Support agency training efforts
Workforce Facts

• Average age nationwide of skilled trade construction workers is 48 years

• Many born during 1945–1950 will retire in 2010–2015

• Construction careers were rated 498th out of 500 by high school students and parents
Workforce Facts

• Technology is constantly changing

• New technology requires a competent, trained, and certified workforce
How is TCCC Meeting the Need?
TCCC Past-Present-Future

- Curriculum matrices
- National Transportation Training Resource Database
- Interactive Website
- Training development
TCCC Past

Core Curriculum Matrix Development

• Developed matrices listing core competencies for four skill levels in the following areas
  • Maintenance
  • Construction
  • Materials
  • Safety and Work Zone
  • Workforce Development
<table>
<thead>
<tr>
<th>DISCIPLINES</th>
<th>COMPETENCIES BY SKILL LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Level I</strong></td>
</tr>
<tr>
<td>Surface Preparation</td>
<td>Assists in performing surface inspections</td>
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<tr>
<td>Competencies by skill level</td>
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<tr>
<td>Concrete Delivery</td>
<td>Assists in inspections of delivery vehicles to make sure they are in good working condition</td>
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TCCC Present
National Transportation Training Resource Database

• National Interest:
  – TCCC, NTTD, LTAP
  – AASHTO, TRB, ITE

• Identifying existing training courses

• Determining new training needs

Database will be launched in 2008
Complete data on training courses
- objectives, level, audience, tests, manuals, contacts, etc.

Review and link to competencies by level

Maintain online searchable training database
- more than 50 subject areas
Welcome to the Transportation Curriculum Coordination Council (TCCC) Training Clearinghouse. The purpose of this website is to provide transportation professionals with resources needed to develop a skilled workforce and further their own professional development.

Resources available include course offerings, schedules, and contact information; web-based seminars; conferences; and other training and capacity building documentation.

**Search for Resources**

In the boxes below, you can select one or more terms by holding down the Control button on your keyboard. You can also select terms in one or more of the boxes. The more terms you select, the fewer resources will be returned.

<table>
<thead>
<tr>
<th>Subject Area:</th>
<th>Discipline:</th>
<th>Skill Level:</th>
<th>Resource Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Contract Administration</td>
<td>Right of Way (ROW) Mgt</td>
<td>Level I</td>
<td>Blended</td>
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<tr>
<td>Quality Assurance</td>
<td>Contractor Payments</td>
<td>Level II</td>
<td>CD-ROM</td>
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<tr>
<td>Environment</td>
<td>Supplemental Agreements</td>
<td>Level III</td>
<td>CD-ROM, Classroom Option</td>
</tr>
<tr>
<td>Construction Inspection</td>
<td>Force Accounts</td>
<td>Level IV</td>
<td>Classroom Course</td>
</tr>
</tbody>
</table>

*Key Word Search*

This search works in combination with whatever terms are selected above.
Who? When? and Where?

WHO?

– Users
  • Training professionals in need for training resources
  • Registration and a password will be needed

– Contributors
  • Persons who will input the data for the database
When?
The system will open to the public on August 15

Where?
www.nttr.dot.gov
The Future of the NTTR

As the NTTR evolves, more and more resources will be collected and maintained. The NTTR will assist users and stakeholders to identify training gaps in various subject areas.

It is anticipated that courses will be developed to fill those gaps and ultimately provide greater support to the comprehensive learning needs of transportation professionals at all skill levels.
TCCC Present

Web Based Training Courses

5 Free Online Training Courses Available Through Partnership with NHI

• Ethics Awareness for the Transportation Industry

• Basic Construction and Maintenance Documentation

• Improving the Daily Diary
TCCC Present

Web Based Training Courses

5 Free Online Training Courses Available Through Partnership with NHI

• Basic Materials for Highway and Structure Construction and Maintenance

• Hardened Concrete Properties (Durability)
TCCC Present

Web Based Training Courses

5 additional Online Training Courses Coming Soon

- GPS Technology
- Plan Reading
- Math
- Bolt Connections
- Stormwater
Note: Course is web based

Length of the course is 4 hours

Course was developed by TCCC
TCCC Present

Interactive Website

Website offers:

• National Transportation Training Database (Coming Soon)

• Direct link to Web Based Training Courses

• Listing of all TCCC training courses available through NHI
CONSTRUCTION AND MAINTENANCE

COURSE NUMBER: FHWA-NHI-134001

COURSE TITLE: TCCC Principles of Writing Highway Construction Specifications (2-Day)

FISCAL YEAR LENGTH CEU FEE
2008 2 Days 1.2 Units $300 Per Participant
2009 2 Days 1.2 Units $320 Per Participant

TRAINING LEVEL: Beginner

CLASS SIZE: Minimum:20; Maximum:30

DESCRIPTION:

This course addresses the engineering and legal aspects and linguistics of writing specifications. THIS IS NOT A COURSE IN TECHNICAL WRITING! The course addresses issues of how to draft new specifications or rewrite existing ones in clear, readable, and definitive statements of contract requirements. Classroom activities include lectures, case studies, workshops, and writing assignments.

The course is available in a 2-day, 3-day and 4-day version, and can be tailored to meet the needs of the host organization. The 2-day course consists of Modules 1 and 2, and one additional module selected by the host. The course instructor will assist the host in selecting the most appropriate modules for the target audience. The course modules are:

Included:

Module 1: Definitions, Forms, and Purpose of Specifications

Module 2: Specification Writing Principles

Select one additional module from among these options:

Module 3: In-Depth Practical Writing Exercise

Module 4: Method and End-Result Specifying

Module 5: Ensuring Specification Work in the Field

Module 6: General Provisions

Module 7: Specifications for Alternative Methods to Deliver, Procure, and Manage Construction

An additional resource for highway specifications: The National Highway Specifications Web site is now available at http://www.specs fhwa dot gov

Developed in partnership with the Transportation Curriculum Coordination Council (TCCC).
TCCC Future
Training Under Development

- Maintenance Leadership Academy
- Inspection of Bridge Rehabilitation
- Environmental Factors in Construction and Maintenance
- Advanced Emulsion Technology
- Embankment Construction Inspection
- Inspection of Pipe Installation
TCCC Future

Pooled Fund Project

• Funding source for TCCC Efforts
• Follow-up to 2002 Pooled Fund
  – Over $1.3 million contributed over 5 years
  – Supported curriculum and training development
• Contributions are now being sought for the next five years
For more information about the TCCC go to:

www.nhi.fhwa.dot/tccc

Or contact:

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QUESTIONS?