Transportation Asset Management
Training Opportunities

A project of the Transportation Asset Management Pooled Fund Research Program TPF-5(036)

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Rationale and Goals

- Create comprehensive inventory of Transportation Asset Management short courses
- Make information on training opportunities widely available
- Improve access to Transportation Asset Management training
- Create summary of university based Transportation Asset Management courses offered for Credit
Acknowledgements

• Michigan Transportation Asset Management Council
  – Education and Training Subcommittee
• FHWA Office of Asset Management (Steven Gaj)
• Wisconsin DOT
  – TPF 5-(036) pooled fund lead state
Products

- Inventory of available courses
- Abstract of content for each course
- Identification of major themes of courses
- Identification of potential future training providers
Advisory Committee/Expert Panel

- Academics
- FHWA
- State DOT personnel
- LTAPs
- Private training provider
Survey of providers of Professional Training

- 70 courses identified
  - 33 surveys received; approx. 40 courses represented
  - In addition information collected from approx 30 potential providers
- Many courses no longer offered or were not renewed due to lack of audience
Survey of providers of Professional Training

- FHWA
- National Highway Institute
- LTAPs
- DOTs
  - In house
  - In cooperation with LTAPs
- Private Providers
Survey of providers of Professional Training

• Focus
  – Asset Management Generally
  – Rigid or Flexible Pavements
  – Bridge Management
  – Inventorying
  – Strategic Planning
  – Monitoring and Performance Measurement

• Topics Covered
• Primary Audience
• Course Length
• Course Design/Layout/Schedule
Survey of providers of Professional Training

- Primary Instructional Technique
- Class Size
- Times Offered
- Instructor Characteristics
- Geographic Area
- Cost of Registration
- PDH/CEU
- Open ended
Survey Response/Findings

Common themes of courses are:

• Asset/Infrastructure Management
• Preventive Maintenance
• Pavement Management
• Policy
• Economic Analysis
General Findings

Instructors tend to be either

- Consultants with a practical focus
- Transportation professionals

In addition

- Many courses offer professional development credits as an incentive (as many as 12)
- DOTs rely on the state LTAPs to provide training
Findings

Intended Audience

- State DOT technical staff: 8
- Local Professional officials: 6
- Local Technical Staff: 10
- Local Field Staff: 2
- Local Managerial Staff: 4
- Local Elected Officials: 2
- Other: 2
- No Response: 1
Findings

Course Length

- 1/2 day: 4
- 1 day: 20
- 1-2 days: 8
- 3 or more days: 1
- No Response: 1
Findings

Primary Instructional Technique

- Illustrated lecture
- Multi-media presentations
- Interactive sessions
- Case studies
- Distance learning
- Other
- No Response
Findings

Schedule for Offering

- No Response
- No longer offered
- On demand
- Every other year
- Yearly
- More than once a year

0 5 10 15 20
Findings

Frequency Offered

- No Response
- More than twenty
- Sixteen to twenty
- Eleven to fifteen
- Six to ten
- Five or less

0 2 4 6 8 10 12 14 16 18
Findings

Geographic coverage

- International
- US national
- Northwest
- Southwest
- Midwest
- Southeast
- Northeast
- Home state only

Bar chart showing the geographic coverage with Home state only having the highest coverage.
Findings

Instructor characterization

- State or federal government employees
- Consultants with a theoretical focus
- Consultants with a practical focus
- Academics
- Practitioners of Transportation
Findings

Registration costs

- No response
- $201 to $500 per seat
- $101 to $200 per seat
- $100 or less per seat
- No cost
Review of for-credit university courses: Tasks Completed

- Reviewed 16 for-credit graduate course offerings
- Cataloged information on each offering such as instructor contact information, syllabus, topics covered and teaching materials used
- Summarized and categorized findings
Common Themes of For-Credit Asset Management Offerings

- Condition Assessment
- Program Optimization
- Deterioration Modeling
- Preventive Maintenance
- Engineering Economics
- Policy/Government Structures
- Construction
- Emerging Technologies
- Statistics

Number of Offerings
Summary of Findings

- Majority of courses offered by Civil Engineering departments; some are offered by Public Policy schools
- Most courses carry 3 credit hours
- Common subjects include Infrastructure Management, Transportation Asset Management, or Management of Pavement Networks
- Most courses do not use a textbook, but provide reading materials drawn from research papers and government publications.