

## National HMA Technician Certification Program







## National HMA Technician Certification Program




## NCAT's Mission

To provide national leadership for  
the asphalt paving industry through  
research, education, and as a  
clearinghouse for technical  
information.

**National Binder Technician Certification**

The asphalt industry is pleased to announce the new National Binder Technician Certification (NBTC) program. It has been established in recognition of the need for asphalt technology since the 1920s. To meet this need, the Institute has hosted several training and certification courses and has begun to develop a program. Drawing from this experience and research, recognized leaders of asphalt technology, we are pleased to provide a comprehensive, standardized, best practice program for PAV asphalt binder testing.

Based on the NBTC program, **100% Asphalt Binder Testing**, was introduced by us in February 2007. Drawing on the practical laboratory expertise of NHTA, PAV, asphalt mixtures and testing industry experts, 100-20 is the comprehensive link between standards and the technician - providing essential information needed to perform PAV system tests, to also ensure technology, leading asphalt binders and temperature measurements.

The objectives of the NBTC are to:

- Provide a concise, standard interpretation of test methods
- Provide a consistent laboratory test practice
- Clarify test methods
- Help reduce variables, defects and disputes
- Tighten the precision and bias statements in published standards
- Increase confidence in data for use in product development

To become a Certified Binder Technician, a candidate must have a work experience with the testing of asphalt binders for compliance with the PAV specification (ASTM D 1601). Candidates must have either an 18-month, 40-hour experience in asphalt testing directly under an NBTC certified technician before attempting to achieve certification. NBTC Program attendance requires a complete registration form and approval.

**Cost of certification**  
NBTC courses and exams held at the asphalt Institute in Lexington, Kentucky, are \$1,400 per student. Capacity is 4 - 10 students. NBTC courses and exams held at other locations are a flat fee of \$1,800 per student. Capacity is 3 - 10 students.

**125 YEARS OF CERTIFICATION**

ACI offers 27 certification programs designed to form a minimum qualification for personnel employed within the concrete construction industry. Certification examinations and optional training courses are conducted through an international network of over 100 local sponsoring groups. Since 1980, ACI has administered exams to over 350,000 individuals, with over 90,000 certifications currently maintained by ACI.

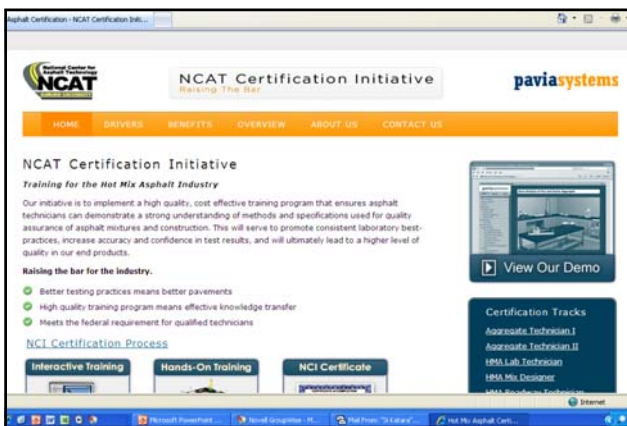
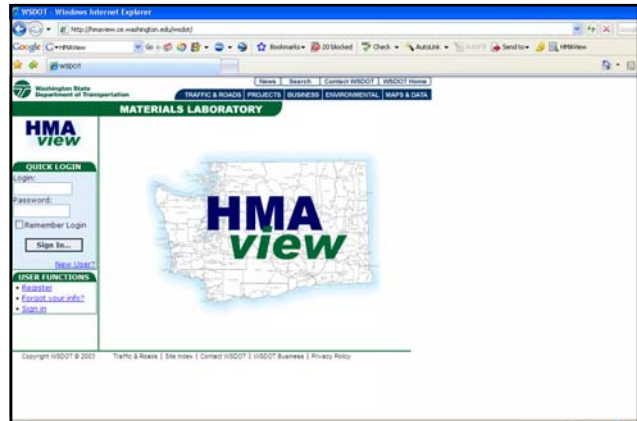
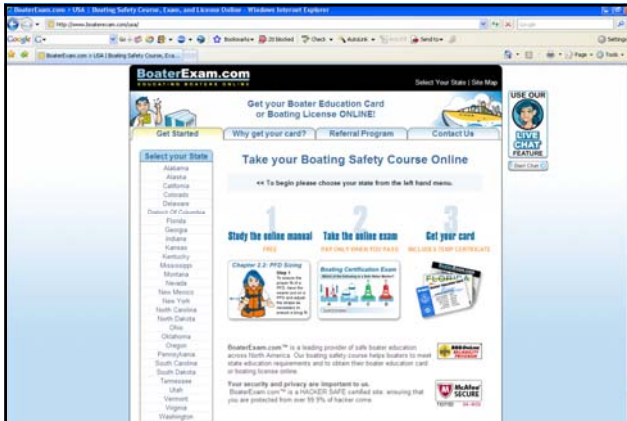
**AMERICANS WITH DISABILITIES ACT (ADA)**  
ACI Certification programs are ADA compliant. Individuals with disabilities requiring special accommodations must contact the ACI Certification Department for further information on how to proceed. All requests for special accommodations under ADA are handled on a case-by-case basis and must be made allowing enough time for evaluation and appropriate action by ACI.

To contact the ACI Certification department, call 249-949-2790.

These national organizations participate (cooperate) with ACI in programs to improve the quality of concrete construction:

- American Concrete Education Association
- American Concrete Institute
- American Subcontractors Association
- American Society of Concrete Contractors

# 2008 SEAUPG CONFERENCE-BIRMINGHAM, ALABAMA PRESENTED BY DR. RANDY WEST, DIRECTOR-NCAT




## National HMA Technician Certification Program

**Objective:** to implement a high quality, cost effective and efficient program that ensures that asphalt technicians can demonstrate a good understanding of methods and specifications used for quality assurance of asphalt mixtures and construction.

  
 NATIONAL CENTER FOR ASPHALT TECHNOLOGY  
 AT AUBURN UNIVERSITY


## Key Features

- Web-based, self-guided training with on-line exams
- Core content based on AASHTO standards
- Content specific to local agencies handled through separate but linked on-line training and exam modules
- Local proficiency exams administered by nationally trained examiners
- Reduces travel and time away from the job for technicians

  
 NATIONAL CENTER FOR ASPHALT TECHNOLOGY  
 AT AUBURN UNIVERSITY

## NCAT Technician Certification Program

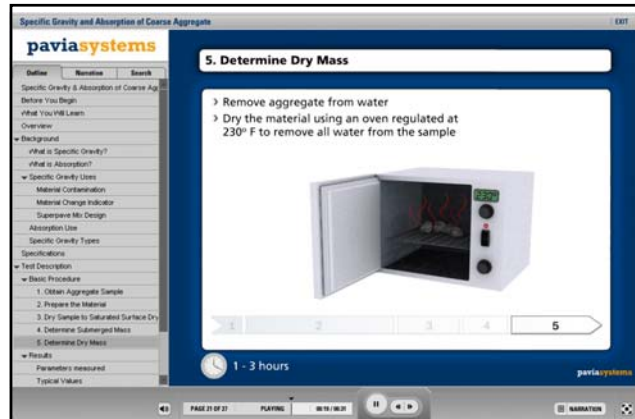
- Aggregate Technician
- HMA Lab Technician
- HMA Roadway Technician
- HMA Mix Designer

  
 NATIONAL CENTER FOR ASPHALT TECHNOLOGY  
 AT AUBURN UNIVERSITY

## Training and Exams for Certification

- Two elements are required for certifications:
  - On-line training course with exam
  - Hands-on demonstration of tests
- Optional live (or video) training will be offered with a written exam in place of on-line version
- Demonstration exam will be like ACI hands-on exam.
- Train the Examiners & Trainers – NCAT will train and qualify live trainers and proficiency examiners

paviasystems



## NCAT Technician Certification Program

- Benefits of on-line training:
  - More consistent training
  - More convenient to participants
  - Better retention of information by participants
  - Lower cost to participants and agencies
  - Better quality assurance data → better quality pavements

paviasystems



## Agency Seals for Agency Specific Requirements

- Agency specifications, method adaptations, pay factors, forms, etc.
- Entirely computer-based, self-study content with on-line exam
- Content is controlled and updated by agency or designee
- Models provided by NCAT/Pavia
- Participants who pass agency specific content gets a "Seal" to go on base certification

paviasystems



## Demonstration Exams

- Demonstration Exams can be administered wherever Certified Examiners can proctor the hands-on exams
- Participants must first complete the self-study content courses and pass the on-line exam(s)
- Standard Demonstration Exam checklists will be established and used. The completed exam checklists will be faxed to NCAT for record management

paviasystems



## Aggregate Technician

- Web-based, Self Study Course (with exam)
  - Construction math
  - Terminology
  - Sampling, washed and dry gradation, ...
- Demonstration/Proficiency (Hands-on exam)
  - Gradation, unit weight, coarse and fine aggregate specific gravity, FAA, ...
  - Standardized proficiency checklist
  - Score sheet faxed to NCAT
- Advanced Certificate
  - Source Property Tests: LA, Soundness

paviasystems



## HMA Lab Technician

- Web-Based, Self Study Content
  - Sampling
  - Ignition method
  - Gyrotory compaction
  - Gmb
  - Gmm
  - Volumetric calculations
  - Equipment calibration
- Demonstration/Proficiency Exam
  - asphalt content, gradation, lab compaction, Gmb, Gmm
  - Volumetric properties

paviasystems



## HMA Roadway Technician

- Self-study content
  - Tack coat application rates
  - Spread rates/yield
  - Rolling patterns
  - Density testing with nuclear and non-nuclear gauges
  - Segregation
  - HMA sampling and coring
  - Smoothness
  - Longitudinal joints
- Demonstration/Proficiency Exam
  - Density testing

paviasystems



## Demonstration Examiners

- Pass the self-study content courses
- Attend NCAT Examiner Training and Pass Demonstration Exams – Receive Examiner Certification



paviasystems



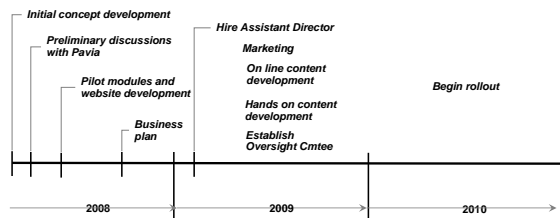
## Who are the Players?

- Program Oversight Committee
  - contractors
  - agencies
  - current certification organizations
- Pavia Systems
- NCAT
- Local Examiners and Labs
- Modules on agency specific materials run by state or designee

paviasystems



## NCAT Certification Program Timeline



paviasystems



Thank You



2008 SEAUPG CONFERENCE-BIRMINGHAM, ALABAMA  
PRESENTED BY DR. RANDY WEST, DIRECTOR-NCAT

