

NDDOT TECHNICAL CERTIFICATION PROGRAM (TCP)

ASPHALT MIX DESIGN/MIX CONTROL

SCHEDULE

ASPHALT MIX DESIGN/MIX CONTROL

January 22-25, 2024, Ramada Hotel, Bismarck, 1 pm first day, then 8/4:30, last day will be 8/noon

March 18-21, 2024, Radisson, Bismarck, ND, 1 pm first day, then 8/4:00, last day will be 7:30/11:00

A block of rooms is available at each hotel but will be released approximately 3 weeks before the class date.

Ramada Hotel 701-258-7000 Radisson Hotel 701-712-6475

OVERVIEW

For the 2023-2024 training season, we have partnered with the National Centers for Asphalt Technologies (NCAT) to deliver this course.

This is not a shared course with the South Dakota DOT. See the DAPA site if your goal is certification in SD.

The title of this class was modified to include 'mix design' in 2020. The content remains the same but will have more focus on the asphalt mix design process and will include a certification option in aggregate-specific gravity for experienced testers. The course continues to provide an overview of production control, field placement, and recognizing quality issues. The course length is approximately 24 hours.

Two separate certifications will be offered through this course. Asphalt Mix Designer and Asphalt Mix Controller.

Asphalt Mix Designers are individuals who create or review asphalt mix designs, run tests included in mix designs or provide recommendations to adjust the JMF/mix design on QC/QA asphalt paving projects. Completion of this course **and** the prerequisites as aggregate and asphalt tester is required for certification.

Asphalt Mix Controllers will attend the same courses but are not testers. They may be a contractor or Engineer staff that provides oversight/inspection during mix placement.

Whether your goal is Asphalt Mix Designer certification or field Asphalt Mix Controller you complete the same courses.

Please note: Students are expected to have on-the-job experience with asphalt paving and/or testing for asphalt mix design with current tester certification when registering.

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COURSE SYLLABUS

Review of mix design aggregate and asphalt mix tests
Aggregate Specific Gravity Testing, ND T 84 and ND T 85
Volumetric Parameter Determination for Asphalt Mix Design
Mixture Design
Calculating and reporting asphalt mixture properties
Specifications and testing tolerances.
Troubleshooting mixture problems in the field
Balanced Mix Design Test Equipment

MINIMUM REQUIREMENTS

Math Skills
Field experience and general knowledge of construction projects and processes
Certification as Aggregate Field Lab and Asphalt Mix Tester

WORK EXPERIENCE

This is not an introductory course. Two or more years of asphalt mix design testing experience is **strongly** suggested before registering for this course. Effectively performing the responsibilities of Asphalt Mix Design or Asphalt Mix Control/Mix (*Production*) Control can only be accomplished by the combination of construction and testing experience followed by certification.

RECOMMENDED ONLINE TRAINING

The following modules are available through the [UGPTI Learning Management System](#). An account is required but is available by request for no charge. The courses will be a refresher for those with prior testing experience, and a good opportunity to learn the basics before class for the student with less testing experience.

Superpave Mix Design Process and Analysis
Superpave for Construction
AASHTO T 30 – Mechanical Analysis of Extracted Aggregate
AASHTO T 166 – Bulk Specific Gravity of Compacted Asphalt Mixtures
AASHTO T 308 – Asphalt Content by Ignition Oven
AASHTO T 312 – Gyrotory Specimens
Ethics Awareness for the Transportation Industry

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REFERENCE MATERIAL

Manual with presentations

ND Standard Specification for Roads and Bridges

ND Field Sampling and Testing Manual

CERTIFICATION REQUIREMENTS

Aggregate Testing Certification
Asphalt Mix Testing Certification
Asphalt Pavement Inspection
Asphalt Mix Design and Mix (*production*) Control

Successful completion of all courses.

Certification for Aggregate Specific Gravity is available with this course. Successful completion of a performance exam is required.

REGISTRATION

To register for this course, click this link or go to the [TCP Registration](#) page.

For the 2023-2024 season, we are offering this course at no registration cost. Please submit a registration request and we will review and provide confirmation of enrollment.

INSTRUCTORS

Travis Walbeck, NCAT Training Manager

Jason Moore, NCAT Lab Manager

CONTACT

Questions: dotmaterials@nd.gov

701-328-6937

[TCP Web Link](#)