

## 2011-2012 Technician Education and Certification Class Schedule

ND Department of Transportation (NDDOT) and  
Dakota Asphalt Pavement Association (DAPA)  
January 23, 2012

*This schedule will be updated periodically – please verify availability before sending in registration forms. Registration forms may be sent in early but payment must be received one week before class begins to guarantee enrollment.*

### Aggregate Tester and Asphalt Tester

The Aggregate Testing classes are held at NDDOT Materials and Research. They include classroom discussion, lab demonstration and practice, forms and calculations. Class size is limited to 15 students. All students are required to participate in the practice portion of the class.

For the Asphalt Mix Testing *for Testers* class, the instructional portion will be held at the Comfort Inn, Bismarck. The demonstration and practice portion will be held at the Materials and Research office, Bismarck.

**Aggregate Testing** Class 2, March 12-14, 2012, 1-5 pm, 8-5 pm, 8-Noon.

Cost: \$175 **Class is Full 12/05/11**

**Comfort Inn, Bismarck**, lab portion will be held at  
Materials and Research office at 300 Airport Road, Bismarck

**Asphalt Mix Testing for Testers**, 16 hours **Class is Full 11/21/11**

March 14-16, 2012, 1-5 pm, 8-5 pm, 8-Noon

Cost: \$175

**Comfort Inn, Bismarck**, lab portion will be held at  
Materials and Research office at 300 Airport Road, Bismarck

Registration  
Testing

**Aggregates and Asphalt Mix Testing for Mix Controllers**, 24 hours

February 7-9, 2012, 8-5 pm

Cost: \$350

Comfort Inn, Bismarck

## Asphalt Mix Controller

Classes required for certification

**Asphalt Pavement Inspector**, 20 hours - Completed

December 13, 1-5 pm, 14 and 15<sup>th</sup> 8-5 pm

Cost: \$250

Seven Seas Inn, Mandan

**Registration**  
Mix Controller

**Aggregates and Asphalt Mix Testing for Mix Controllers**, 24 hours\*

February 7-9, 2012, 8-5 pm

Cost: \$350

Comfort Inn, Bismarck

**Asphalt Mix Controller**, 24 hours

February 27-March 1, 2012

1-5 pm on 27<sup>th</sup>, 8 to 5 on Feb 28 and 29, March 1, 8 to Noon.

Cost: \$350

Seven Seas Inn, Mandan

*\*11/17/11 – In an effort to accommodate more student registrations for the 2011-2012 training season, we will include laboratory demonstrations and allow individuals to performance test for Aggregate or Asphalt Tester certifications based on attending this class. The performance exams for tester certifications will need to be completed, by appointment, **after this class**. And as with all “tester” certifications, it is **highly recommended** that individuals have on-the-job experience before requesting a performance exam.*

*Individuals that have the goal of obtaining Mix Controller Certification only will not need to complete a performance exam.*

## **Certification Renewal Classes – Aggregate and Asphalt**

### **Asphalt Pavement Inspection Renewal, 4 hours**

March 5, 2012, 1 to 5 pm

Cost: \$50

Seven Seas, Mandan

Registration  
Renewals

### **Aggregate and Asphalt Renewal, 8 hours**

This class includes renewal for Aggregate Tester, Asphalt Mix Tester and Asphalt Mix Controller.

March 6, 2012, 8 am to 5 pm

Cost: \$100

Seven Seas, Mandan, ND

### **Performance Exams for Aggregate or Asphalt Tester Renewal**

By appointment, NDDOT Materials and Research, Bismarck.

Bismarck Performance Exams

March 7, 8 to Noon

March 8, 1 to 5 pm

Dates have not yet been determined for Eastern North Dakota

### **Class Locations**

Comfort Inn, 1030 E Interstate Ave, Bismarck, ND 58503, 701-223-1911

Seven Seas Inn, I-94 & Exit 152, Mandan, ND 58554, 701-663-7401 or 800-597-7327

NDDOT Materials and Research, 300 Airport Road, Bismarck, ND 58504, 701-328-6900

A block of sleeping rooms is reserved for the classes that are held at a hotel. The rooms will be held for one month before the class date. Motel room availability in the Bismarck and Mandan areas may be limited so please make reservations early.

### **Concrete Field**

ACI Concrete Field Testing certification classes are sponsored by the ND Ready Mix Association.

[http://www.ndconcrete.com/Events/form\\_ACI\\_FSnT.htm](http://www.ndconcrete.com/Events/form_ACI_FSnT.htm)

The class dates for 2012 are as follows:

Bismarck, February 15-16, 2012

Dickinson, February 20-21, 2012

Fargo, February 21-22, 2012

Certifications expire December 31 of the year listed on your card. If your card says, valid thru 2011, you are due for a renewal class this training season. (*December 2011–April 2012*) If you do not attend certification renewal classes in the year they are due you will lose that certification(s). All prerequisites must be completed to re-establish certification. Certifications are valid for five years.

*For questions and additional information contact Sharon Taylor at the ND Department of Transportation, Materials and Research Division, 300 Airport Road, Bismarck, ND 58504-6005. Telephone 701-328-6937 or e-mail at [staylor@nd.gov](mailto:staylor@nd.gov)*

See the following pages for class descriptions, certifications offered and certification renewal requirements.

## **Class Descriptions**

### **Introduction to Asphalt**

This is an introductory class that covers basic information on asphalt materials and aggregates. It is taught entirely in a classroom. *This class is optional.* This class is recommended for individuals with little to no experience with materials testing or working on construction projects. An open-book, self-graded exam is given. (8 hours)

### **Asphalt Inspection**

This is a paving and inspection class for the asphalt inspector and the contractor's superintendent and foreman. It is taught entirely in the classroom and covers subjects such as paver and roller types and operations, specification requirements, and agency and industry roles and responsibilities. A written examination is offered at the completion of the class. This is the only class required to obtain asphalt inspection certification. If you do not have working experience in construction, it is recommended that you attend the Introduction to Asphalt class. (20 hours)

### **Aggregate Testing and Asphalt Mix Testing Required Classes**

Classes are held at the NDDOT Materials and Research conference room or at a local hotel/conference center with portions held at Materials and Research.

All Aggregate and Asphalt Testing classes will discuss all tests, procedures and forms used. Class format varies in the advanced class and the class for Mix Controllers.

### **Aggregate Testing**

This class is intended for the individual requesting certification as an Aggregate Tester. All tests and procedures included in our aggregate certification are included. Video demonstration of tests and procedures, laboratory demonstration and practice are included. A written exam and performance exam is offered. (16 hours)

This class is a pre-requisite to the Asphalt Mix Testing for Testers class if certification as a tester is desired.

### **Asphalt Mix Testing for Testers**

This class is intended for individuals requesting certification as an Asphalt Mix Tester. This class includes the test methods and test procedures ran on the asphalt mix as well as includes discussion on how the test result are used in the process of developing an asphalt mix design. The class includes video demonstration, discussion, and laboratory practice. A written and performance examination is offered at the completion of the class. (16 hours)

It is highly recommended that anyone attending either class **and** requesting certification at the completion of the class, have prior materials testing experience. A performance exam is offered at the completion of class; however, if you are unfamiliar with test procedures, the performance exam may be completed by appointment, at a later date.

All test procedures are available online in the Field Sampling and Testing Manual and should be reviewed before attending a class.

<http://www.dot.nd.gov/divisions/materials/testingmanual.htm>

## Asphalt Mix Controller Certification Required Classes

### **Aggregate and Asphalt Mix Testing for Mix Controllers**

This class covers quality control and quality assurance testing of aggregates and hot mix asphalt. The class will include a video demonstration of all aggregate and asphalt test procedures as will provide discussion on how to interpret the test results and understand how they influence the quality of the asphalt mix. It is taught entirely in the classroom and attendance is required for Asphalt Mix Controller certification. (24 hours)

*\*11/17/11 – In an effort to accommodate a large number of student registrations for the 2011-2012 training season, we will include laboratory demonstrations and allow individuals to performance test for Aggregate or Asphalt Tester certifications after completing this class. The performance exams for tester certifications will need to be completed, by appointment, after this class. And as with all “tester” certifications, it is highly recommended that individuals have on-the-job experience before requesting a performance exam.*

*Individuals that have the goal of obtaining Mix Controller Certification only will not need to complete a performance exam.*

### **Asphalt Mix Controller**

This class is taught entirely in the classroom and covers mix design requirements and working ranges as specified by NDDOT QC/QA specifications. It also covers subjects such as blending aggregates, detection of data uniformity and numerous other topics. A written examination is offered at the completion of the class. (24 hours)

## Soil Testing Class

### **Soil Field Testing**

The tests and procedures ran on soils in the field/construction site are covered in this class.

This class is intended for the individual requesting certification as a Soil Field Tester. All tests and procedures included in Soil Field Testing are included. Video demonstration of tests and procedures, laboratory demonstration and practice are included. A written exam and performance exam is offered. (8 hours)

## Certifications Offered

Please note the changes to the certification requirements. Attending the Introduction to Asphalt Class has been removed. However, it is recommended that individuals with no working experience in materials testing or construction practices should consider attending the Introduction to Asphalt class.

**Asphalt Inspector** - requires successful completion of Asphalt Pavement Inspection.

**Asphalt Controller** - requires successful completion of Aggregate and Asphalt Mix Testing for Mix Controllers, Asphalt Pavement Inspection and Asphalt Mix Controller.

**Aggregate Tester** - requires successful completion of an Aggregate Testing class and performance exam of each test or procedure.

**Asphalt Mix Tester** - requires successful completion of Aggregate Testing and Asphalt Mix Testing for Testers, plus a performance exam of each test or procedure.

**Soils** - requires successful completion of the Soils testing class which includes a performance exam of each procedure.

### **Certification Renewal**

**Certification Renewal Classes** - classes are required every five years after certification is achieved.

**Asphalt Pavement Inspection Certification Renewal** - This is a half day refresher class for Asphalt Pavement Inspectors. A written exam is offered at the completion of the class.

**Aggregate and Asphalt Certification Renewal** - This is a one-day certification renewal class that covers the requirements for Aggregate Testers, Asphalt Mix Testers and Asphalt Mix Controllers. A written exam is offered at the completion of the class.

Individuals that are certified as "Testers" will need to complete the hands-on performance exam in addition to this class. That exam may be scheduled by appointment.

**Soils** – Successful completion of a certification renewal class and a performance exam of each procedure.

**Concrete** – American Concrete Institute Field Testing Technician – Grade 1 is equivalent to Concrete Field Tester certification. Contact the ND Ready Mix & Concrete Products Association for class schedule. 701-255-7250.

*For additional information contact Sharon Taylor at the NDDOT, Materials and Research Division, 701-328-6937 or e-mail at [staylor@nd.gov](mailto:staylor@nd.gov)*

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#### **Aggregate Tester**

- T 2 - Sampling of Aggregates
- T 11 - Materials Finer Than No. 200 Sieve in Mineral Aggregate
- T 27 - Sieve Analysis of Fine and Coarse Aggregate
- T 248 - Reducing Samples of Aggregate to Testing Size
- T 255 - Total Moisture Content of Aggregate
- T 84 - Specific Gravity and Absorption of Fine Aggregate
- T 85 - Specific Gravity and Absorption of Coarse Aggregate
- T 89 - Determining the Liquid Limit of Soils
- T 90 - Determining the Plastic Limit and Plasticity Index of Soils
- T 113 - Lightweight Pieces in Aggregate
- T 176 - Sand Equivalent Test
- T 304 - Fine Aggregate Angularity
- ASTM D 4791 - Flat or Elongated Particles in Coarse Aggregate

NDDOT 3 - Shale, Hard Iron Oxide  
NDDOT 4 - Fractured Particles in Coarse Aggregate

**Asphalt Mix Tester**

T 245 - Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus  
T 166 - Bulk Specific Gravity of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens, Method A  
T 209 -Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures  
T 312 - Preparing and Determining Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor  
NDDOT 5 - Sampling and Splitting Field Verification Hot Mix Asphalt (HMA) Samples

**Soils Field Tester**

T 99 & 180 Moisture-Density Relations of Soils  
T 191 Density In-Place by the Sand Cone Method  
T 217 Determination of Moisture in Soil by Means of Calcium Carbide Gas Pressure Moisture Tester (Speedy)  
T 265 Laboratory Determination of Moisture Content of Soils  
ASTM D 2167 Density of Soil in Place by the Rubber-Balloon Method  
ASM D 4643 Microwave Method of Drying Soils

The test procedures are available in the Field Sampling and Testing Manual.

The manual is available at:

<http://www.dot.nd.gov/divisions/materials/testingmanual.htm>