MoDOT Technician Certification Program

Certification Courses Rev:07/16/2024

Figure 2

Go to Application (Figure 2)

Aggregate Technician Part 1 & Part 2 (AT)

PDH hours 9

No Prerequisite **Location: State Tech. College, Linn MO** 3 Days - First Time, ½ Day – Renewal

PART ONE

AASHTO R90	Sampling of Aggregates
AASHTO R76/ASTM C 702	Reducing Samples of Aggregate to Testing Size
AASHTO T 255/ASTM C 566	Total Moisture Content of Aggregates by Drying.
AASHTO T 11/ASTM C 117	Materials Finer than No. 200 by Washing
AASHTO T 27/ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates

PART TWO

MoDOT TM 71	Deleterious Content of Aggregate
ASTM D 4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregates
AASHTO T 84/ASTM C 128	Specific Gravity and Absorption of Fine Aggregate
AASHTO T 85/ASTM C 127	Specific Gravity and Absorption of Coarse Aggregate
MoDOT TM 81	Specific Gravity and Absorption of Aggregate Using Automatic Vacuum Sealing Method (Informational Only)

Bituminous Technician (BT)

PDH hours 9

No Prerequisite **Location: State Tech. College, Linn MO** 2 Days - First Time, ½ Day – Renewal

AASHTO R66	Sampling Asphaltic Materials
AASHTO R97	Sampling Asphaltic Paving Mixtures
AASHTO R 47	Reducing Samples of Asphalt Mixtures to Testing Size
AASHTO T 329	Moisture Content of Asphalt Mixtures by Oven Method
MoDOT TM 54	Determining Asphalt Content of a Bituminous Mixture by Nuclear Method
AASHTO T 166 & T 331	Bulk Specific Gravity of Compacted Bituminous Material
AASHTO T 269/ASTM D 3203	Percent Air voids in Compacted Dense and Open Bituminous Paving Mixtures
MoDOT TM 20	Measurement of Air, Surface, or Bituminous Mixture Temperature

Soil Density (SD)

PDH hours 9

No Prerequisite **Location: State Tech. College, Linn MO** 2 Days - First Time, ½ Day – Renewal

AASHTO T 265	Laboratory Determination of Moisture Content of Soils
AASHTO T 99	Moisture-Density Relations of Soils
MoDOT TM 40	A One-Point Moisture-Density Relations Test for Soils
AASHTO T 310	Density and Moisture Content of Soil and Soil Aggregate by Nuclear Methods (Shallow Depth)
MoDOT TM 35	Moisture Offset Factor for a Nuclear Gauge

Concrete Field (CF)

PDH hours 9

No Prerequisite **Location: State Tech. College, Linn MO** Day 1 of 2 - First Time, ½ Day – Renewal

MoDOT TM20	Measurement of Air, Surface or Bituminous Mixture Temperature
AASHTO R60/ASTM C 172	Sampling of Freshly-Mixed Concrete
ASTM C 1064	Temperature of Freshly-Mixed Portland Cement Concrete
AASHTO T 119/ASTM C 143	Slump of Hydraulic Cement Concrete
AASHTO T 152/ASTM C 231	Air Content of Freshly-Mixed Concrete by the Pressure Method
AASHTO T 23/ASTM C 31	Making and Curing of Concrete Cylinder Specimens in the Field
AASHTO T121M/ASTM C138	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
AASHTO T196M/ASTM C173	Test for Air Content of Freshly Mixed Concrete by the Volumetric Method
AASHTO T 23/ASTM C 31	Making and Curing of Concrete Beam Specimens in the Field

Concrete Strength (CS)

PDH hours 4

No Prerequisite **Location: State Tech. College, Linn MO** 2 Day - First Time, ½ Day – Renewal

AASHTO T 24/ASTM C 42	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
AASHTO T 148/ASTM C 174	Measuring Length of Drilled Concrete Cores
AASHTO T 231/ASTM C 617	Capping Cylindrical Concrete Specimens
ASTM C1231	Use of Unbounded Caps in Determination of Compressive Strength of Hardened Cylindrical Concrete Specimens
AASHTO T 22/ASTM C 39	Compressive Strength of Cylindrical Concrete Test Specimens
AASHTO T97/C78	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)

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Go to Application (Figure 2)

Plasticity Index (PI)

See Current Calendar for pricing

PDH hours 4

No Prerequisite **Location: State Tech. College, Linn MO** 1 Day - First Time, ½ Day – Renewal

MoDOT TM 79	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test Particle Size Analysis of Soils (Aggregate Specific)
AASHTO T 89	Determining the Liquid Limit of Soils (Aggregate Specific)
AASHTO T90	Determining the Plastic Limit and Plastic Index of Soils (Aggregate Specific)

International Roughness Index (IRI) Profile

PDH hours 4

No Prerequisite **Location: State Tech. College, Linn MO** 1 Day

MoDOT TM 59	Determination of the Surface Profile using the International Roughness Index

Superpave QC/QA (SP) STC

PDH hours 36

Prerequisite requirements: Aggregate Technician & Bituminous Technician 3 Days - First Time, 1 Day – Renewal

Location: TBA

AASHTO T 209	Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)
AASHTO T 312	Preparing and Determining the Density of HMA Specimens by Means of the Superpave Gyratory Compactor
AASHTO T 308	Determining the Asphalt Binder Content of HMA by the Ignition Method
AASHTO R 30	Standard Practice for Mixture Conditioning of HMA
AASHTO R97, and R67	Sampling Asphalt Mixtures and Asphalt Cores
	Practice for Superpave Volumetric Design for HMA
	Standard Specification for Superpave Volumetric Mix Design
	Plant Operation, Intro to Superpave, Field Verification, Volumetrics, HMA QC Plan,
	Temperature-Viscosity Relations, Random Sampling, Contract Administration
	Job Mix Formula (JMF) Interpretation
	Pay Factor Theory, QC/QA, Record Keeping, QC/QA

HMA Aggregate (Consensus Tests) (HMA)

PDH hours 4

Prerequisite requirements: Aggregate Technician **Location: TBA** 1 Day

AASHTO T 176	Plastic Fines in Graded Aggregates and Soils by the Use of the Sand Equivalent Test
AASHTO T 304	Un-compacted Void Content of Fine Aggregate
ASTM D 5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregates

TSR

PDH hours 4

Prerequisite requirements: Superpave QC/QA **Location: TBA** 1 Day

AASHTO T 283	Resistance of Compacted Asphaltic Mixtures to Moisture Induced Damage

Binder Ignition (BI)

PDH hours 4

Prerequisite requirements: Aggregate Technician & Bituminous Technician **Location: TBA** 1 Day

AASHTO T 308	Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method