

## **Materials and Tests Unit Courses**

### **Summary of Course**

### **Prerequisites, OJT Forms, and Field Training Requirements**

## **Field Operation Courses**

### **Concrete Courses**

#### **Concrete Field Technician (MAT 100)**

- Pre-Requisite Form completion preferred but not required (first time attendees)  
Link to form - [Concrete Field Technician Certification PRE-REQUISITE MEMO and FORM For New Attendees Attached.pdf \(ncdot.gov\)](#)

#### **Concrete Batch Technician (MAT 110)**

- Concrete Field Technician Certification (certification does not have to be active)
- Field Certification by instructor following class

#### **Volumetric Concrete Batch (MAT 110V)**

- Concrete Field Technician Certification or
- Concrete Batch Technician Certification

#### **PCCP - Portland Cement Concrete Pavement (MAT 130/131)**

- Active Concrete Field Technician Certification
- Field Certification by instructor following class

#### **ACI Concrete Strength Testing (MAT 150)**

- None

## **Asphalt Courses**

### **Introduction to Asphalt (CON-250)**

- Offered online through Stanly Community College  
<https://www.stanly.edu/continuing-education/introduction-asphalt.html>

### **QMS Roadway Technician (MAT 535)**

- Introduction to Asphalt (through Stanley Community College – provide copy of certificate)
- 10 Day OJT (On the Job Training) Checklist Full Packet - [OJT Roadway Checklist Full Packet](#) or
- QMS Roadway Experience Certification Form - [QMS Roadway Experience Certification Form](#)

### **QMS Level I Plant Technician (MAT 525)**

- Introduction to Asphalt (through Stanley Community College – provide copy of certificate)
- QMS Plant Level I Tech OJT Full Packet – [OJT Level I Plant Tech Full Packet](#)

### **QMS Level II Plant Technician (MAT 530)**

- Introduction to Asphalt (through Stanley Community College – provide copy of certificate)
- Minimum of one year with an active QMS Level I Certification

## **GeoMaterials Courses**

### **ABC Sampling (MAT 210)**

- Field Certification by instructor following class

### **Borrow Pit Sampling (MAT 410)**

- Field Certification by instructor following class

### **Conventional Density (MAT 230)**

- Field Certification by instructor following class

### **Chemical Stabilization Subgrade/Base - QA Field (GEO 156)**

- Chemical Stabilization Subgrade/Base – Essentials (GEO 155) offered by GeoTechnical Engineering Unit – Geopavement Group
- Conventional Density (MAT 230)

### **Nuclear Safety and Hazardous Materials (MAT 250)**

- No Prerequisite
- NCDOT Employees ONLY

### **Nuclear Density Testing – Base, Select, & FDR Materials (MAT 370)**

- Field Certification by instructor following class
- Prefer completion of Nuclear Safety and Hazardous Materials (MAT 250) prior to attending

### **QMS Density Gauge (MAT 380)**

- Field Certification by instructor following class
- Prefer completion of Nuclear Safety and Hazardous Materials (MAT 250) prior to attending

**ABC Sampling Recertification (MAT 210R)**

- Already certified in ABC Sampling (cannot be expired over a year)
- May need Field Certification by Instructor

**Borrow Pit Sampling Recertification (MAT 410R)**

- Already certified in Borrow Pit Sampling (cannot be expired over a year)
- May need Field Certification by Instructor

**Conventional Density Recertification (MAT 230R)**

- Already certified in Conventional Density (cannot be expired over a year)
- May need Field Certification by Instructor

**QMS Density Gauge Recertification (MAT 380R)**

- Already certified in QMS Density Gauge (cannot be expired over a year)
- May need Field Certification by Instructor

**Nuclear Density Testing – Base, Select, & FDR Materials Recertification (MAT 370)**

- Already certified in Nuclear Density Testing – Base, Select, & FDR Materials (cannot be expired over a year)
- May need Field Certification by Instructor

**Nuclear Safety and Hazardous Materials Refresher Training (MAT 251)**

- NCDOT Employees ONLY
- Nuclear Safety and Hazardous Materials Certification (MAT 250)
- Must be actively receiving a film badge

## **M&T Laboratory Courses**

### **QC/QA Aggregate Sampling (MAT 400)**

- No Prerequisite

### **QC/QA Aggregate Testing (MAT 405)**

- QC/QA Aggregate Sampling Certification
- Field Evaluation by instructor following class

### **Concrete Mix Design (MAT 120)**

- Concrete Field Technician Certification (does not have to be active)
- Concrete Batch Technician Certification (does not have to be active)

### **QMS Asphalt Mix Design (MAT 580)**

- Introduction to Asphalt (through Stanly Community College – provide copy of certificate)
- QMS Level I or
- QMS Level II
- Approved Mix Design course required

## **Manufactured Materials Courses**

### **Field Welding Inspection (MAT 700)**

- No Prerequisite

### **Field Welder Testing**

- No Prerequisite

### **Bridge Coatings Inspection – Level I (MAT 800)**

- No Prerequisite