

# NICET Certification in

## Transportation Engineering Technology and Construction Materials Testing



*Over 4,000 technicians nationwide hold a current NICET Highway Construction certification. In July 2010, NICET counted approximately 8,200 current certifications in Construction Materials Testing.*



### What Transportation/Construction Materials Testing certifications does NICET offer?

NICET offers four Levels of certification based on knowledge and experience in the following areas:

#### Highway Construction

This program is for engineering technicians involved in the inspection (monitoring) of highway construction projects. Areas covered are interpretation of contract plans and specifications; project record keeping and reporting; construction surveying; field inspection and testing procedures, techniques, and equipment; and supervisory techniques.

#### Highway Design / Roadway Design

This certification is designed for engineering technicians who prepare plans, specifications, and estimates for proposed roadway and highway (roadways and bridges) construction projects.

#### Highway Maintenance

This program is for engineering technicians who inspect/supervise street and highway maintenance activities. It covers all aspects of routine roadway and right-of-way maintenance, including interpretation of plans and specifications; scheduling of projects and personnel; recordkeeping; knowledge of materials (asphaltic concrete, portland cement concrete, soils, herbicides, etc.) and techniques for their proper use; familiarity with equipment and proper use of equipment and associated safety features; and traffic safety during maintenance operations.

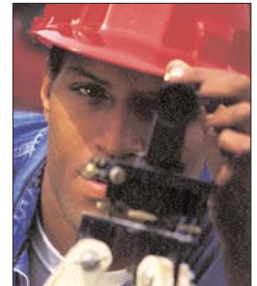


#### Construction Materials Testing

This certification program is for engineering technicians involved in laboratory and field testing of highway materials such as aggregates, asphalts, concrete, and soils. The program addresses knowledge of techniques and equipment; recordkeeping and reporting procedures pertaining to materials and quality control; and supervisory techniques.

#### Highway Surveys

This program is for engineering technicians involved in field and/or office aspects of highway surveying. Level IV requires experience in a variety of activities such as horizontal and vertical measurements, traversing, cross-sectioning, staking, mapping, photogrammetry, land descriptions, and platting.



#### Highway Traffic Operations

This certification program is for engineering technicians involved in traffic studies and traffic control. The program tests knowledge of techniques and equipment; recordkeeping and report procedures; plans, specifications, and contracts; roadway geometrics; and analysis of data.

#### Bridge Safety Inspection

This certification program was designed for engineering technicians who inspect existing bridges in order to determine their physical condition, maintenance needs, and potential hazards. (This program is not designed for technicians engaged in the construction inspection of new bridges.) The program tests knowledge of the physical sciences, the materials and structural elements of common and special bridges, and the analysis, rating, and reporting of bridge inspection results.



Level I is designed for trainees and entry-level technicians who perform limited job tasks under frequent supervision, Level II is for technicians who perform routine tasks under general daily supervision, Level III is for intermediate-level technicians who, under little or no daily supervision, work with standards, plans, specifications, and instructions, and Level IV is for independent, senior-level technicians whose work includes supervising others.

## What are the benefits of certification?

NICET certification is a respected and recognized credential for technical competency and quality. While the certification enables engineering technicians to demonstrate their skills and knowledge, it also establishes a career path that promotes continuing professional development.

Employers and specifiers are increasingly using NICET certification as a qualifying factor when hiring and promoting technicians. The Institute's certification process can even be used to identify workers' training needs.

*"A main purpose of implementing a certification program in the Highway Maintenance community is to raise the level of competence while providing career opportunities for our employees."*

**Gary L. Hoffman, P.E.**  
*Deputy Secretary for Highway Administration  
PA Department of Transportation*

## What are the requirements for certification?

Applicants must meet the following requirements:

- Passing score on a written examination based on typical tasks of the certification practice area;
- Relevant work experience (minimal experience is required at Level I; two years is required for Level II, five years for Level III, and ten years for Level IV);
- Supervisor verification of competent job task performance; and
- A personal recommendation submitted on the applicant's behalf by a qualified third party. (required at Levels III and IV)

Certification at Levels II, III, and IV does not require prior certification at the lower level, but it does require meeting the certification requirements of the lower levels.

## Where can I find more information?

At NICET's web site, [www.nicet.org](http://www.nicet.org), each Transportation Engineering Technology program has its own web area with detailed information about the program's content and requirements. (To browse NICET's certification programs, click on the 'Certification' option on the web site menu bar.)

The web site provides access to all the materials needed for testing: application forms, program detail manuals, examination requirements, and the NICET exam schedule.

## About NICET

A non-profit certification organization, NICET's mission is to be an independent, internationally-recognized evaluator of technical knowledge and experience among those working in the fields of engineering technology.

Through its certification programs, the Institute defines and supports career paths and ensures recognition and continued professional development of engineering technicians, engineering technologists, and other related disciplines.

Established in 1961, NICET has awarded certificates to approximately 130,000 engineering technicians and engineering technologists. Currently, NICET offers certification programs in more than 25 technical areas.

For more information about NICET and its certification programs, please visit the Institute's web site at [www.nicet.org](http://www.nicet.org).

### National Institute for Certification in Engineering Technologies

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NICET introduced its Transportation Engineering Technology certification programs in 1979. With funding from the Federal Highway Administration and the technical guidance of an AASHTO task force, the Institute designed the programs with input from



several State Departments of Transportation, trade associations, engineering firms, educational institutions, engineering technicians, and federal, county, and city agencies. Bridge Safety Inspection was added in 1985 after a collaboration with the United States Department of Transportation.

