Become a NICET Advocate for the Engineering Team

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Chief Operating Executive
What is NICET?

- National Institute for Certification in Engineering Technologies (NICET)
- A semi-autonomous division of the National Society of Professional Engineers
- Established in 1961 as ICET – ETCI in 1977
- A not-for-profit certification body
- Policy direction by 8-person Board of Governors
Why does NICET exist?

- Provides nationally-applicable, voluntary certification programs
- Covering most major engineering technology fields & many specialized technical disciplines
- DO NOT offer membership services
- DO NOT provide training
Licensure/Certification/Diploma?

- **Licensure** is a legal credential conferred by federal, state, or local government authorities.

- **Certification** is a voluntary credential conferred by private organizations.

- **Diploma/Certificate** is conferred by an educational institution.
Who does NICET certify?

- Individuals with appropriate engineering technician or engineering technologist work experience
- Partial credit given for relevant work experience as craftsperson, scientist or engineer
- Residents of the United States and territories and certain others living abroad
Types of work...

- Involved in planning, design, fabrication/construction/installation, acceptance, operation, and/or maintenance of products, facilities, and processes
- Carry out support functions – data collection, estimating, proposal/plan/specification preparation, quality control/quality assurance, technical sales, technical writing
Value of NICET Certification - Technicians/Technologists

- Professional stature
- Opportunities for job advancement
- Quicker entry into new job assignments or new duties/responsibilities
- Prequalified for assignments where NICET certification is required
Value of NICET Certification
- Employers

• Knowledge and skill assessment of new and existing personnel
• Identification of specific training needs
• Measure of training comprehension
• Identifiable team of qualified professionals in focused career tracks
• Mobile work force - across all jurisdictions
Value of NICET Certification
- Regulatory Agencies

• Third-party evaluation of technical proficiency for all Engineering Team members

• Increased value in engineering products and services purchased for the public

• Additional recourse for unqualified or unethical practitioners on the job
Value of NICET Certification
- The Public

• Provides high-quality engineering products and services, more efficiently and cost effectively

• Increased protection of the health, safety, and welfare of the public
Engineering Technicians...

- “Hands-on” members of Engineering Team
- Specific knowledge of components, operating characteristics, and limitations of engineering systems and processes
- General knowledge of applied math, physical science, and engineering science equivalent to AS degree program in engineering technology
Technician Programs

• 27 Specialty Areas
• 20 Work Element Model
• 7 Standard Model
Specialty Areas…

- Transportation Engineering Technology
- Construction Materials Testing
- Fire Protection Engineering Technology
- Geotechnical Engineering Technology
- Industrial Instrumentation
- Underground Utilities Construction
- Building Construction
- Electrical Power Testing
- Low Voltage Communication Systems
- Security Systems
Certification Requirements…

- Written examination
- Increasing amount of relevant work experience
- Verification of competency
- Professional recommendation (Levels III & IV)
- Major project involvement (Level IV)
Work Element Model...

- Test individual Work Elements
- Graduated work experience
- Verification of Work Elements
- Professional recommendation (Level III & IV)
- Major project write-up (Level IV)
Work Element Exams…

- Paper & Pencil format
- Up to 34 Work Elements per exam
- Max. 7-hour tests
- 140 test centers
- Weekly test dates
- Basic multiple-choice questions
- Pass/Fail Work Elements
- “Bank” passed Work Elements
“New” Standard Model...

- Comprehensive tests
- Graduated work experience
- Verification of Performance Measures
- Professional recommendation (Level III & IV)
- Major project write-up (Level IV)
Standard Model Exams...

- Computer-Based Testing format
  - Comprehensive exams
  - 1-3 exams per level
- 2-4 hour tests
- 250 test centers
- Daily testing possible
- Advanced multiple-choice, hot-spot, drag & drop, performance simulations
- Pass/Fail exams
Computer-Based Testing...

- Separate Tests per Level
- 90-Day Testing Window
- Schedule and Test at Pearson VUE
- Photo ID at Check-in
- Palm-Vein Scan
- Locker for Personal Items
- Proctor & Video Surveillance
- Approved References Only
- No Loose Paper
- Dry-Erase Board Provided
- Sign Confidentiality Statement
- Brief Tutorial Before Testing Begins
- Embedded Microsoft Scientific Calculator
- Score Report Upon Exit
Levels of Certification...

- **Level I** – Technician Trainee
- **Level II** – Associate Engineering Technician
Levels of Certification...

• Level III – Engineering Technician

• Level IV – Senior Engineering Technician
Engineering Technologists

• Members of Engineering Management Team

• Work closely with engineers, scientists, and technicians

• Thorough knowledge of equipment, applications & established design, and implementation methods
Engineering Technologists

• Certification awarded at two levels:

<table>
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<tr>
<th>ASSOCIATE TECHNOLOGIST</th>
<th>CERTIFIED TECHNOLOGIST</th>
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<tbody>
<tr>
<td>BS degree in engineering technology from TAC/ABET accredited program</td>
<td>AT plus five years relevant work experience and two professional endorsements</td>
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• Most major BSET disciplines
Recertification…

• Continuing Professional Development required every three years

• 90 CPD points: relevant work experience; continuing education; professional involvement; certification activities; recertification exam

• Active, Retired, Inactive, Expired Status
52 years of proven performance

- Maintain 100% financial independence
- Annual budget of $4.6 M – Staff of 25
- 27 specialty certification programs available
- Over 135,000 technicians/technologists certified to date
- Currently about 35,000 active certificates
- 10,000 written exams administered annually
- National testing network of more than 500 centers
Thank You

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