NIMS: Machining Level 1
Measurement, Materials, and Safety

**Aligned Programs of Study:** Machining Technology, Electromechanical Technology, Mechatronics, Welding

**Aligned Courses:**
- Principles of Manufacturing (C13H05)

**General**

The [National Institute for Metalworking Skills](https://www.nims-skills.org/web/nims/10) (NIMS) Machining Level 1 certifications measure an individual's skills against the NIMS Standards. There are eleven different Machining Level 1 certifications of which Measurement, Materials and Safety is the most basic. Earning a NIMS certification normally requires a performance test and a theory test. The Measurements, Materials, and Safety certification requires only the theory exam. The performance requirements and theory tests are drawn directly from the NIMS standards, and are written and piloted by industry. The Machining Level 1 certifications tests are designed to meet entry-level requirements for on-the-job skills.

**Certification Description**

The [Measurement, Materials and Safety](https://www.nims-skills.org/web/nims/10) certification for NIMS Machining Level 1 certifies an individual's skills as measured against the NIMS Standards. This certification requires only a theory test. The Measurement, Materials, and Safety certification includes the following competencies:

- Applied mathematics
- Filing
- Geometrical dimensioning and tolerancing (GD&T)
- Inspection
- Machine maintenance
- Machine safety
- Machining applications
- Materials
- Measurements
- Print reading
- Shop safety

**Materials and Resources**

There are a variety of training materials and resources found at NIMS's website: [https://www.nims-skills.org/web/nims/10](https://www.nims-skills.org/web/nims/10).

**Test Owner and Registration**

National Institute for Metalworking Skills, Inc. (NIMS)
10565 Fairfax Boulevard, Ste. 10
Fairfax, VA 22020
Phone: (703) 352-4971
Fax: (703) 352-4991
Email support@nims-skills.org
Registration Procedures/Testing Centers
Click here to contact NIMS. Click here to access information on how to become a testing site, testing fees, and the duties of each party involved.

Fees
- Effective July 1, 2019 NIMS will no longer charge registration fees.
- Entry level (Level 1) tests are $80 per person. One retake is allowed.
- NIMS no longer offers the 1-year credentialing/unlimited flat rates.
- Programs with very large numbers (over 50 test takers) may subscribe to reduce the price.

<table>
<thead>
<tr>
<th>Exam Codes</th>
<th>Machining Level 1 – Measurement, Materials, and Safety</th>
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<tbody>
<tr>
<td>Website</td>
<td><a href="https://www.nims-skills.org/web/nims/home">https://www.nims-skills.org/web/nims/home</a></td>
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<tr>
<td>Number of Questions</td>
<td>60 questions</td>
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<tr>
<td>Type of Questions</td>
<td>Performance-based and Standards-based</td>
</tr>
<tr>
<td>Length</td>
<td>90 Minutes for theory exam</td>
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<tr>
<td>Passing Score</td>
<td>The passing score has been raised to better reflect skills needed to meet NIMS standards. The “cut-score” or percentage passing rates vary by test and are set by the Technical Work Groups. This information is confidential and not available to the public. The exam has been improved to adjust questions to focus better on the Measurement, Materials, and Safety content areas.</td>
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