

## TOOL AND DIE MAKER

---

**Credential Issued:**

ITA Certificate of Qualification (Tool and Die Maker)

Inter-Provincial Red Seal Endorsement (Tool and Die Maker)

(Persons completing a formal apprenticeship also receive a Certificate of Apprenticeship)

**Occupational Description:**

“Tool and Die Maker” means a person who makes, repairs and tests dies, cutting tools, jigs, fixtures, gauges and special hand tools by laying out, setting-up, machining, fitting and finishing metal stock and castings.

**Program Duration & Structure:**

The program will be delivered in a variety of formats combining in-school and work-based training, all designed to meet the competency standards and profile defined by the industry, and will generally take 5 years to complete. The program includes:

- In-school: 20 weeks\* (approximately 5 weeks per level)
- Work-based: 7280 hours

\*The in-school / technical training requirement is typically met through block release training delivered by an ITA approved training provider. It can also be met through approved alternative training models (e.g. distance education, part-time) and / or level challenge exam where these options are available.

**Program Completion Requirements<sup>1</sup>:**

Completion of 7280 workplace hours:

- Sponsor attestation

Completion of technical training: (Requirement can be met through challenging a level exam where available.) Technical Training is the same as Machinist

- Level 1 - practical assessments and written level examination
- Level 2 - practical assessments and written level examination
- Level 3 - practical assessments and written level examination
- Level 4 - practical assessment and written level examination

Inter-Provincial Red Seal Examination

**Program Challenge Requirements:**

- 9900 documented hours of directly related work experience required to challenge Inter-Provincial Red Seal examination.

---

<sup>1</sup> Persons registered as apprentices prior to January 1, 2006 are eligible to receive a Certificate of Apprenticeship (Tool and Die Maker) upon completion of 8250 workplace hours, Levels 1-4 technical training (Machinist) and submission of a sponsor attestation. An inter-Provincial Red Seal Endorsement can be affixed to the Certificate of Apprenticeship issued to apprentices registered prior to August 1, 2005 who voluntarily write and pass the Tool and Die Maker I.P. examination. Persons registered after January 1, 2006 are required to pass the Inter-Provincial examination and meet all other program requirements in order to be issued a Certificate of Qualification with a Red Seal endorsement.

**Program Pre-requisites:**

- Recommended Education: Grade 12 or equivalent including English 12, Algebra 11 or Trade Mathematics 11 & Physics 11 or Science & Technology 11.

**Assessment Methods:**

- In-school assessments (practical and written exams)
- Work-based assessments (practical)
- Final Assessment (Inter-Provincial Red Seal written examination)
- Levels 1 & 2 exams by challenge (See asterisk above under Program Completion Requirements).

**Linkages to Other Credentials:**

***Cross Program Credit***

- Holders of a BC Certificate of Qualification in Machinist may be eligible to receive practical experience credit and technical training credit.

**Prior Learning Assessment:**

n/a

**Program Standards Documentation:**

- National Occupational Analysis (2005) [www.red-seal.ca](http://www.red-seal.ca)
- Program Outline

**Industry Program Standards Mechanism:**

TBA

**Program Providers:**

Institution-based component of the program is delivered by public post-secondary institutions (see [www.educationplanner.bc.ca/apprenticeship.cfm](http://www.educationplanner.bc.ca/apprenticeship.cfm) for a list of schools), private training institutions, and secondary schools that have been approved by ITA .

**Technical Training Content:**

***Level 1***

Cutting Tools  
Machine Operations  
Machine Maintenance  
Fitting & Assembly  
Abrasive Machining  
Thread Theory

***Level 2***

Trade Mathematics  
Blueprint Reading & Sketching  
Measuring Devices  
Layout  
Cutting Tools  
Machine Operations  
Fitting & Assembly  
Metallurgy & Materials  
Abrasive Machining

***Level 3***

Trade Math  
Measuring Devices  
Cutting Tools  
Machine Operation  
Fitting & Assembly  
Metallurgy & Materials  
Abrasive Machining

***Level 4***

Machine Operations  
Metallurgy & materials  
Abrasive Machining  
Gear Cutting  
N.C. Machines  
Jigs & Fixtures  
Trade Mathematics  
Blueprint Reading & Sketching

**IP Examination Competencies: NOA 1997**

1. Occupational Skills 15%
2. Machine Setup and Operation 29%
3. Prototypes 13%
4. Metallurgy and Materials 7%
5. Jigs, Fixtures and Dies 36%

Approved: March 2002 (ITAC)

Updated: May 2006 (ITA)