



## TOWER CRANE OPERATOR

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### Occupation Description

“Tower Crane Operator” means a person who operates tower cranes (including luffing jib and articulated jib tower cranes) to perform lifts and hoist loads, and has experience with rigging practices and procedures.

For detailed information on the scope of knowledge and skills taught and assessed in this program refer to the Program Outline, available on the ITA website.

### Pathways to Certification

In BC, an individual can become certified as a Tower Crane Operator by completing the Tower Crane Operator program or by challenging the certification. All crane operators must be registered with British Columbia Crane Safety prior to applying for ITA apprenticeship registration. Apprenticeship programs are for individuals who have an employer to sponsor them and challenge programs are for individuals who have extensive experience working in the occupation and wish to challenge the certification.

Youth can begin an apprenticeship in high school through the Youth Train in Trades or Youth Work in Trades programs. The Youth Work in Trades program is available for any trade if an employer is willing to sponsor the student. Trades offered through the Youth Train in Trades vary by region; contact your local school district to find out which technical training programs are being offered through the Youth Train in Trades program in your region.

Foundation programs, where available, provide adults and youth who do not have work experience or employer sponsorship with an opportunity to gain the knowledge and skills needed to enter the occupation. Individuals who wish to enroll in a Foundation program must register directly with the training provider.

### Recommended Education

The following education is recommended for apprentices entering this occupation. These are not prerequisites, but rather a desired level of skill or knowledge that will contribute to success in the industry.

- Grade 12 or equivalent

### BC Crane Safety Registration

BC Crane Safety registration is required for all crane operators in British Columbia. Registration forms are available on the BC Crane Safety website at [www.bccranesafety.ca](http://www.bccranesafety.ca).

### ITA Registration

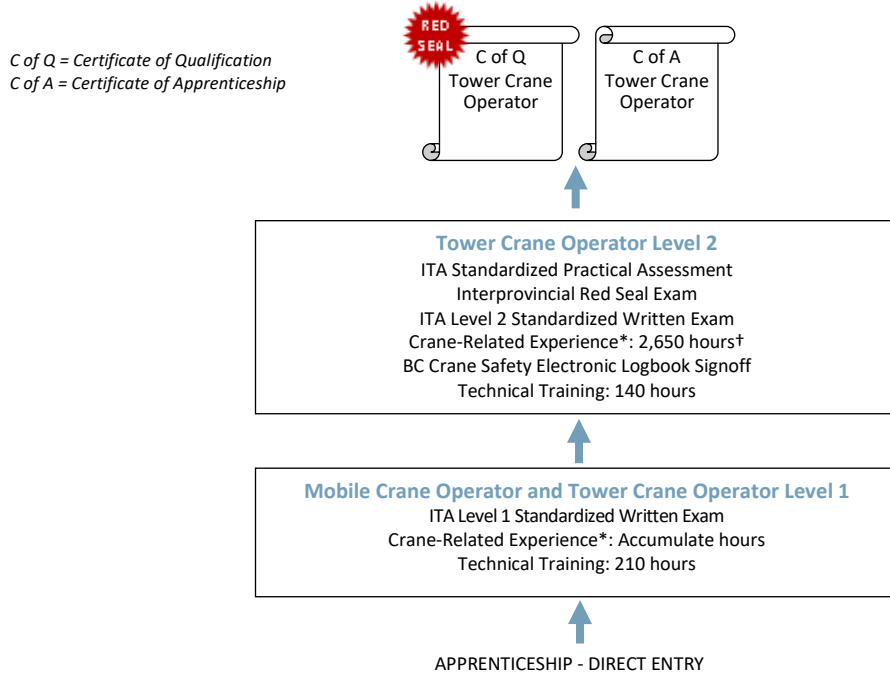
Individuals who wish to begin an apprenticeship in this program must register with ITA along with their sponsor. Application forms for all programs are available from the ITA website. Online registration is also available for most programs through the ITA website.

Those who wish to challenge the Tower Crane Operator certification must complete the Tower Crane Operator Challenge Application and submit it to ITA. Challenge applications are assessed for proof of workplace hours and scope of experience prior to acceptance of the individual into the challenge pathway.



### Apprenticeship Pathway

This graphic provides an overview of the Tower Crane Operator apprenticeship pathway.

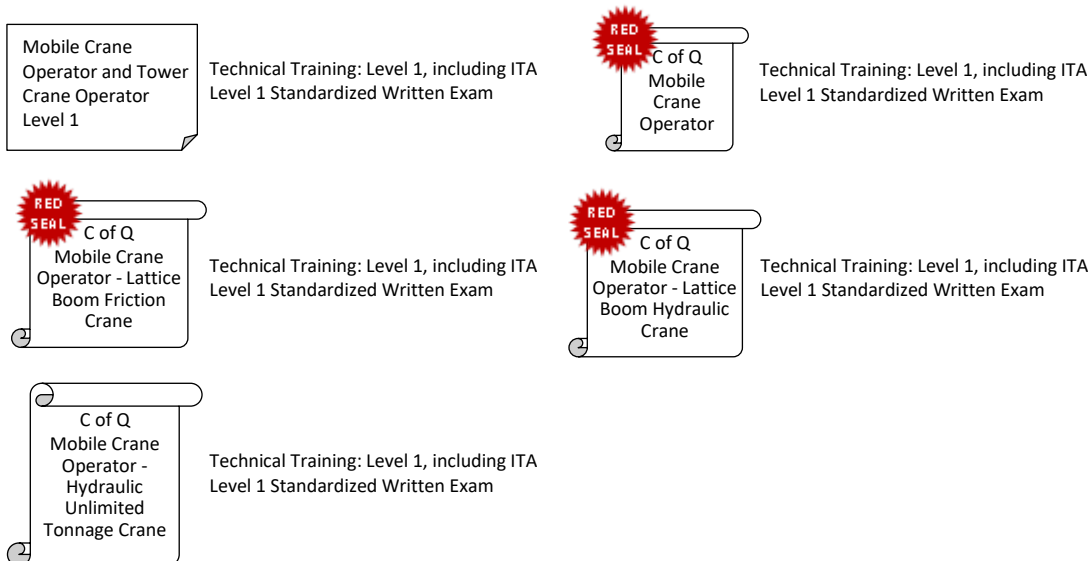


\*Crane-related experience as entered in the operator's BC Crane Safety electronic logbook  
 †The 2,650 hours include:

- A minimum of 500 hours of documented rigging time
- A minimum of 500 hours operating tower crane equipment with a minimum mast height of 90 ft.

#### CROSS-PROGRAM CREDITS

Individuals who hold certification or partial credit in a crane program and plan to move to an alternate crane program





**Apprenticeship Program Standards**

- Credentials Awarded**
- Tower Crane Operator - Certificate of Qualification with Interprovincial Red Seal endorsement
  - Tower Crane Operator - Certificate of Apprenticeship

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- ITA Registration Prerequisites**
- Agreement signed by the Sponsor to sponsor the apprentice

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**Completion Requirements** Certification as a Tower Crane Operator is awarded upon successful completion of:

Requirement	Level of Achievement Required
Technical Training	Minimum 70% in each level of technical training: <ul style="list-style-type: none"> <li>▪ Mobile Crane Operator and Tower Crane Operator Level 1: 210 hours</li> <li>▪ Tower Crane Operator Level 2: 140 hours</li> </ul>
ITA Level 1 Standardized Written Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> </ul>
ITA Level 2 Standardized Written Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam is required before attempting the Level 2 Standardized Written Exam</i></li> </ul>
Interprovincial Red Seal Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam is required before attempting the Interprovincial Red Seal Exam</i></li> </ul>
ITA Standardized Practical Assessment	<ul style="list-style-type: none"> <li>▪ Pass</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam, the Level 2 Standardized Written Exam and the Interprovincial Red Seal Exam is required before attempting the practical assessment</i></li> </ul>
Work-Based Training	<ul style="list-style-type: none"> <li>▪ 2,650 hours, which includes:               <ul style="list-style-type: none"> <li>○ A minimum of 500 hours of documented rigging time</li> <li>○ A minimum of 500 hours operating tower crane equipment with a minimum mast height of 90 ft.</li> </ul> </li> </ul>
Notification by BC Crane Safety that the Sponsor(s) has recommended certification of the apprentice in this trade	<ul style="list-style-type: none"> <li>▪ Electronic logbook which includes workplace hours signed off by the Sponsor(s)</li> </ul>

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**Program Duration** Duration varies depending on how training is delivered and the type and number of workplace hours that are accumulated.

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



**Apprenticeship Program Standards**

**Challenging a Level**      The following levels of technical training can be challenged for advanced placement in this program:

- Mobile Crane Operator and Tower Crane Operator Level 1

**Cross-Program Credits**      Individuals who hold certification or partial credit in a crane program and plan to move to an alternate crane program

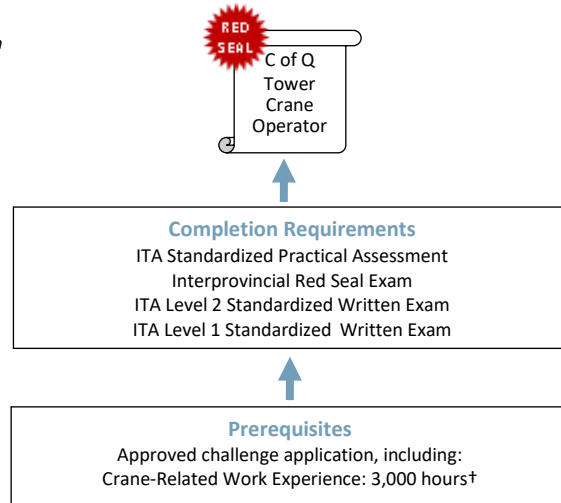
Credential	Credit(s) Granted
Mobile Crane Operator and Tower Crane Operator Level 1	▪ Technical Training: Level 1, including ITA Level 1 Standardized Written Exam
Mobile Crane Operator	▪ Technical Training: Level 1, including ITA Level 1 Standardized Written Exam
Mobile Crane Operator - Lattice Boom Friction Crane	▪ Technical Training: Level 1, including ITA Level 1 Standardized Written Exam
Mobile Crane Operator - Lattice Boom Hydraulic Crane	▪ Technical Training: Level 1, including ITA Level 1 Standardized Written Exam
Mobile Crane Operator – Hydraulic Unlimited Tonnage Crane	▪ Technical Training: Level 1, including ITA Level 1 Standardized Written Exam



## Challenge Pathway

This graphic provides an overview of the Tower Crane Operator challenge pathway.

*C of Q = Certificate of Qualification*

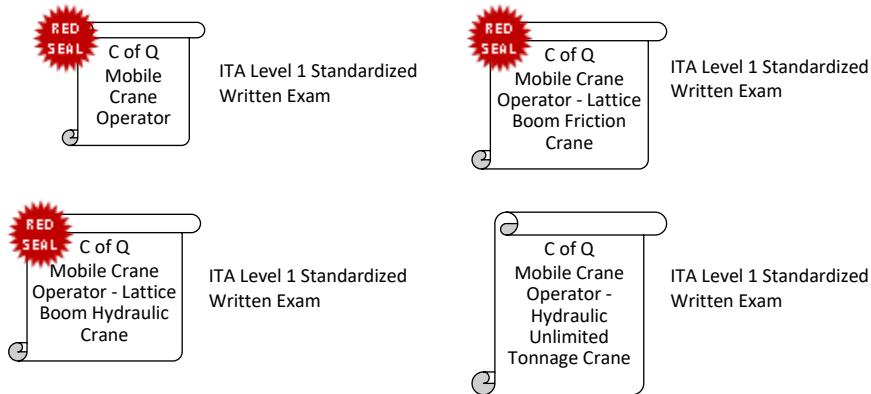


†The 3,000 hours include:

- A minimum of 500 hours of documented rigging time
- A minimum of 500 hours operating tower crane equipment with a minimum mast height of 90 ft.

### CREDIT FOR PRIOR LEARNING

*Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program*



**Challenge Program Standards**

**Credentials Awarded**

- Tower Crane Operator - Certificate of Qualification with Interprovincial Red Seal endorsement

**ITA Registration Prerequisites** An approved Challenge Application, which includes:

- Documented evidence of achievement of the competencies listed in the ITA Tower Crane Operator Challenge Application.
- Minimum 3,000 documented hours of directly-related experience working in the occupation. This includes:
  - A minimum of 500 hours of documented rigging time
  - A minimum of 500 hours operating tower crane equipment with a minimum mast height of 90 ft.

**Credit for Prior Learning**

Individuals who hold the credentials listed below are considered to have partially met the completion requirements for challenging this program:

Credential	Credit(s) Granted
Mobile Crane Operator	▪ ITA Level 1 Standardized Written Exam
Mobile Crane Operator - Lattice Boom Friction Crane	▪ ITA Level 1 Standardized Written Exam
Mobile Crane Operator - Lattice Boom Hydraulic Crane	▪ ITA Level 1 Standardized Written Exam
Mobile Crane Operator – Hydraulic Unlimited Tonnage Crane	▪ ITA Level 1 Standardized Written Exam

**Completion Requirements**

Certification as a Tower Crane Operator is awarded upon successful completion of:

Requirement	Level of Achievement Required
ITA Level 1 Standardized Written Exam	▪ Minimum 70%
ITA Level 2 Standardized Written Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam is required before attempting the Level 2 Standardized Written Exam</i></li> </ul>
Interprovincial Red Seal Exam	<ul style="list-style-type: none"> <li>▪ Minimum 70%</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam is required before attempting the Interprovincial Red Seal Exam</i></li> </ul>
ITA Standardized Practical Assessment	<ul style="list-style-type: none"> <li>▪ Pass</li> <li>▪ <i>Note: Successful completion of the Level 1 Standardized Written Exam, the Level 2 Standardized Written Exam and the Interprovincial Red Seal Exam is required before attempting the practical assessment</i></li> </ul>



### **Supporting Documents**

Tower Crane Operator Program Outline (2016) – Defines the full scope of knowledge and skills required to competently perform the occupation in BC. Available from the ITA website: [www.itabc.ca](http://www.itabc.ca).

Tower Crane Operator National Occupational Analysis (2012) and CCDA Harmonization Recommendations (2015) – Prepared by industry experts, under the guidance of the federal government, for Red Seal trades to define the national standard of competence for the trade. Available from the Red Seal website: [www.red-seal.ca](http://www.red-seal.ca).

Operator logbook – Crane programs utilize an electronic logbook which is assigned upon registering with BC Crane Safety. All crane operators must be registered with BC Crane Safety.

### **Contacts**

The **Industry Training Authority (ITA)** manages B.C.'s industry training and apprenticeship programs. Contact ITA Customer service if you have any questions regarding registration, examinations or certification for this program.

Telephone: 778-328-8700  
Toll Free (within BC): 1-866-660-6011  
Website: [www.itabc.ca](http://www.itabc.ca)

Fax: 778-328-8701  
Email: [customerservice@itabc.ca](mailto:customerservice@itabc.ca)

**BC Crane Safety** sets and manages the industry program standards and the crane operator certification program in British Columbia. BC Crane Safety works with industry to identify current and emerging knowledge, skill, and safety requirements for occupations related to this program.

Telephone: 604-336-4699  
Email: [info@bccacs.ca](mailto:info@bccacs.ca)

Fax: 604-336-4510  
Website: [www.bccranesafety.ca](http://www.bccranesafety.ca)

### **Revision History**

The standards for this program were reviewed and/or updated on the dates below.

Program Standards Approved: November 2016  
Updated: June 2017  
Updated: March 2020  
Updated: May 2021

Program Profiles are updated regularly. Visit [www.itabc.ca](http://www.itabc.ca) for the most current version.