



## Introduction

The Forest Professional Regulators of Canada (FPRC) is a national organization founded in 1982 to act as an advocate for matters identified by its member agencies as having national importance or consequence for forest practitioners. The member agencies are the professional forester/ingénieur forestier regulatory associations (“regulatory members” or “regulatory bodies”) established through provincial legislation, or similar means, as well as the Canadian Institute of Forestry (CIF), representing provinces without a recognized professional regulatory presence.

Whether in a “right-to-title” or a “right-to-practice” jurisdiction, entrance into professional forest practice (certification) in Canada is governed by well-defined criteria central to the statutory mandate of each of the regulatory members of the Federation. Although they may have various modes of implementation in each province, these entrance criteria have common component groupings, as follows:

- Educational requirements;
- Practical experience requirements (in forestry);
- Sponsorship by Registered Professional Foresters in good standing; and
- In most provinces, one or more registration examinations (often called a “professional” or “jurisprudence” exam, depending on the provincial jurisdiction).

This document sets out the academic and experiential requirements (the Certification Standards) that are common to, and have been approved by, all FPRC regulatory members. L’Ordre des ingénieurs forestiers du Québec (OIFQ) has adopted complementary entrance requirements accepted by its fellow FPRC member agencies for labour mobility purposes.

The formal adoption of these Certification Standards by the FPRC in 2017 facilitated inter-jurisdictional mobility for certified professionals and has enabled the FPRC member agencies to be in compliance with the labour mobility requirements of Chapter 7 of the Canadian Agreement on Internal Trade (AIT), under which the credentials of a Registered Professional Forester/ingénieur forestier (RPF/ing.f.) in any Canadian jurisdiction are recognized by, and accepted for professional practice in any other FPRC jurisdiction, OIFQ included.

In focusing on the four essential elements for certification described later in this document, the FPRC member agencies provide a blueprint for professional certification and, consequently, accreditation practices that they expect will:

- allow for recognition of a broader range of professional forestry practitioners;
- provide increased fairness, standardization and consistency for entry into the profession;
- make the most of greater labour mobility potentials; and
- encourage innovation in education and training of forestry professionals, as well as in the practice of professional forestry itself.

## Important Definitions

Throughout this document words and terms are used that have specific meaning. It is important to know, at the outset, what is meant by “certification”, “registration”, “accreditation”, and “science-based degree” in the context of these standards.

**Accreditation:** a process of quality assurance through which an education program is assessed by an authorized body for compliance with the academic requirements for entrance into practice in a regulated profession. In professional forestry in Canada, the Canadian Forestry Accreditation Board (CFAB) has been mandated by the FPRC to assess university level forestry programs on its behalf. The FPRC member agencies have agreed, collectively, to abide by the accreditation determinations of the CFAB.

**Certification:** the documented recognition by a governing body that a person has attained occupational proficiency for practice within its jurisdiction. In the professional forestry context, certification is granted by the provincial regulatory agencies of the FPRC.

**Registration (also Licensure):** the act of acceptance into a governing organization of an individual who is in compliance with the entrance requirements of that organization. While the definition is consistent across FPRC jurisdictions, the point at which registration occurs may differ.

**Science-based degree:** a program of study, at the baccalaureate level or higher, in which the majority of time is spent exploring the natural, physical, or social sciences.

Specific words have been employed to guide the interpretation of the requirements of these standards. When an “action verb” such as “describe”, “apply”, “analyse”, “design” or “develop” is used in a Demonstrable Competency, it is expected that the competency will be achieved to a prescribed level of understanding and ability. The levels used follow Bloom (1956) (Attachment 1) who identified a set of verbs that characterize ability at a specified level of sophistication. The verbs used in the Demonstrable Competencies are defined in Attachment 2, organized according to Bloom’s specified learning outcome level.

## Essential Elements for Certification

In forestry, there are four essential elements for certification required by, and common to all CFPFA regulatory members:

- (i) *Academic credentials;*
- (ii) *Forestry competency standards;*
- (iii) *Experience; and*
- (iv) *Commitment to professionalism.*

These elements are described below. Although the breadth of content of the elements present at application may vary from one candidate to another, all elements must be demonstrably in evidence such that, in combination, the whole satisfies fully the requirements for professional practice at the entrance level.

### (i) Academic credentials

This essential element describes the characteristics (rather than content) of the educational foundation a registrant must have upon entry into practice. The characteristics include:

- At a minimum, a four-year, science-based baccalaureate degree, or its combined academic and practice equivalent.
- Foundational studies which demonstrably and cogently support exploration of the forestry studies described by these standards. Such studies are generally considered to be pre-or co-requisite instruction that provides foundational knowledge for more advanced study. Requirements for foundational studies are described in Standard 1.
- Forestry studies which provide the broad background of forestry knowledge and competency required of all professional foresters as described in Standards 2 through 7.
- Studies which demonstrably and cogently broaden understanding of at least one aspect of the practice of professional forestry. Minimum requirements for these are described in Standards 8A through 8E.

As a statement of general intent, it is understood that, for graduates of programs accredited by FPRC, a majority of academic time will have been dedicated to exploration of the subject matter set out in the FPRC's *academic standards for the accreditation of degree forestry programs in Canada*. (The academic standards for certification and for accreditation are harmonized with no difference in intent or meaning.) Meeting the competency requirements can be achieved directly, i.e., within the program itself, or in the way students are granted entrance into the program from feeder institutions, or by completion of the Credential Assessment Process (CAP). In the second case, the school receiving students must be able to demonstrate that the competency requirements for which advanced standing is being granted have been covered appropriately in the time spent at feeder institutions.

The Certification Standards apply also to candidates for certification who have not graduated from an accredited program. In such cases applicants are required to enter the FPRC's Credential Assessment Process (CAP). A description of the CAP and its requirements is found on the FPRC website at <http://www.cfpfa-fcafp.ca>.

## **(II) Forestry competency standards**

The forestry certification standards described in this document were developed by the FPRC through joint discussion with the member schools of the Association of University Forestry Schools of Canada (AUFSC) and the largest part of it is devoted to the standards. That said, it is crucial to keep in mind that the Certification Standards form only one part (of four) of the overall set of certification requirements and that they must be met in conjunction with each of the other three elements described.

Each standard is composed of a principle statement and a set of 1 to 4 Demonstrable Competency requirements. Each Demonstrable Competency contains bulleted elements (subject matter). For further description of these standards' elements, see the section below titled *Understanding the Forestry Competency Standards*. Standard "0", following, provides a more detailed, contextual example of this structure.

A separate, and discrete, standard is provided for each of the following subject areas:

1. Foundational Studies;
2. Communications, Critical Reasoning and Leadership;
3. Professionalism and Ethics;
4. Trees and Stands;
5. Forested Landscapes;
6. Information Acquisition and Analysis;
7. Planning and Administration;
- 8A. Forest Management (FORM);
- 8B. Natural Resources and Ecosystem Management (NREM);
- 8C. Urban Forestry (URBF);
- 8D. Forest Operations (FOPR); and
- 8E. Ecological Restoration and Management (ERAM).

The practice of professional forestry, as defined in legislations across Canada, is far broader than may be inferred by these eight standards. It covers numerous focus areas including natural resource management; land reclamation; urban forestry; forest operations; forest management; fish and wildlife habitat conservation; water quality preservation; forest recreation; forest protection and enhancement of cultural values; forest products marketing; and forest economics, business and management, to name but a few. Standards 8A through 8E are not meant to limit the areas of study for forest professionals. Standards 8A through 8E are meant to provide options for forest professionals at the entry point of their careers. Further studies and experience will broaden their expertise beyond the areas noted in Standards 8A through 8E.

## **(III) Experience**

Every applicant must have sufficient experience to demonstrate competence in the practice of professional forestry at the entrance level. It is left to the registering body, and in some cases the provincial legislation, to specify how and when the requirement is demonstrated and

assessed. A formal period of articling or internship before writing an examination is one approach to demonstration.

#### **(IV) Commitment to professionalism**

Applicants must have a demonstrable understanding of, and commitment to, professionalism and ethics. While some of this essential element can be obtained through formal education (business and environmental ethics courses, lectures on professionalism and regulation of professions), much of it will be demonstrated through the following:

- articling/internship/pre-certification work experience;
- a commitment to continued competency (continuing education);
- a registration examination.

#### **Understanding the Competency Standards**

Demonstrable Competencies required for the profession of forestry in Canada are grouped into competency Standards. Standards are arranged from foundational studies (Standard 1), to competencies needed by all practicing professionals (Standards 2-3), to competencies needed by all practicing foresters (Standards 4-7), and finally to competencies needed by all practicing foresters in a certain area of forestry practice (Standards 8A-8E).

The standards are organized in a progression starting with Standard 1, which describes foundational knowledge required of all forest professionals to fulfill their duties as forest stewards mandated to protect the public interest. Standard 2 describes competencies for communications, critical reasoning and leadership skills required for analyzing complex ideas and providing advice to a range of clients allowing professional foresters to work independently and to participate in and lead inter-disciplinary teams to address multifaceted problems. Standard 3 describes the required commitment to the application of professionalism and ethics. Standard 4 is focussed on trees and stands, knowledge of tree biology, stand structure and dynamics, and silviculture. Standard 5 deals with forested landscapes and complex systems arising from the interaction between living and non-living components over time. Standard 6 describes competencies related to information acquisition and analysis to afford professional foresters an ability to collect information and understand sources of uncertainty that affect data reliability. Standard 7 addresses planning and administration and requires knowledge of the principles of resource allocation and the economic, policy and administrative forces that influence forest practices.

Standards 8A through 8E describe competency requirements for the following areas of practice: Forest Management; Natural Resources and Ecosystem Management; Urban Forestry; Forest Operations; and Ecological Restoration and Management. All applicants for certification must meet the requirements of Standards 1 through 7 plus at least one of Standards 8A to 8E.

Each standard is comprised of a principle statement and Demonstrable Competency requirements. Within each Demonstrable Competency are bulleted elements which describe subject matter of study specifically relevant to each competency. Each component of a Standard is described further in Standard "0" below.

## **Standard 0: [Descriptive]**

**Principle:** *The principle is a self-evident and enduring statement of the context of the standard. The Demonstrable Competency requirements must be considered within the context of the principle statement for that Standard.*

### **Demonstrable competencies and descriptions**

A candidate for certification shall provide evidence of the ability to:

**0.1 Demonstrable Competency** - *A Demonstrable Competency is an essential measurement point.*

A candidate shall be able to demonstrate entry-level competence in each of the Demonstrable Competencies of a standard and shall be able to do so in a manner that corresponds accurately with the “learning outcomes” levels prescribed by a Competency’s action verb(s). (See Attachments 1 and 2.)

#### **• Competency Elements**

Each Demonstrable Competency of a standard is accompanied by bulleted elements that describe the subject matter of study specifically relevant to each competency.

The competency elements provide context and guidance as to the subject matter which would, *in toto*, lead to satisfying the requirements of the Demonstrable Competency. They function as reference points to evaluate whether a candidate for certification has met the evidentiary tests for a competency’s requirements.

For some competencies, it is not mandatory to meet each of the elements listed under each competency at the level specified in the verb for that competency. However, when an element is not addressed by academic training by a candidate at the level of the relevant verb, the candidate must then demonstrate, by means of other verifiable evidence, that they have qualifications which fulfill the requirements of the Demonstrable Competency.

### **An Evidentiary Basis for Demonstrable Competencies**

All claims for having met a Demonstrable Competency must be accompanied by substantiated evidence. The evidentiary requirements are described by the Credential Assessment Process (CAP). A description of the CAP and its requirements is available on the FPRC website at <http://www.cfpfa-fcafp.ca>. As noted above, all applicants for certification must meet the requirements of Standards 1 through 7 plus at least one of Standards 8A to 8E.