

Applicant's Manual

Credential Assessment for Foreign-Trained Applicants
and Graduates of Non-Accredited Programs



CANADIAN FEDERATION OF PROFESSIONAL FORESTERS ASSOCIATIONS



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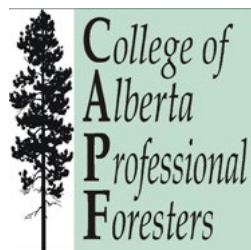
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Introduction

The following forestry regulatory bodies of the Canadian Federation of Professional Foresters Associations (CFPFA) have guided this process and gratefully acknowledge the support of Human Resources and Skills Development Canada (HRSDC) for making this project possible:

- *Association of British Columbia Forest Professionals*
- *Association of Registered Professional Foresters of New Brunswick*
- *Association of Saskatchewan Forestry Professionals*
- *College of Alberta Professional Foresters*
- *Ontario Professional Foresters Association*
- *Registered Professional Foresters Association of Nova Scotia*
- *Registered Professional Foresters of Newfoundland and Labrador*



The support of the Canadian Forestry Accreditation Board and the Canadian Institute of Forestry has been central to the success of this project.



Do You Want to be a Registered Professional Forester in Canada?

Professional forestry is a challenging and rewarding career. Canada will benefit from practitioners who bring diverse skills and experience from other educational backgrounds. This handbook explains the procedures that graduates of non-accredited universities must follow if they wish to have their education, training, and experience assessed for professional registration. It applies to both foreign-trained professionals and Canadian applicants from non-accredited institutions.

If you graduated from a non-accredited forestry program at a university or college in Canada, then this handbook will help you understand what you need to be recognized as a **Registered Professional Forester** (RPF).

Your current education, training, and experience will be assessed to determine if you meet the requirements for registration. The assessment procedures have been developed by the Canadian Federation of Professional Foresters Associations (CFPFA) and are designed for both foreign-trained individuals and graduates from forestry programs not accredited by the **Canadian Forestry Accreditation Board**. These assessment procedures have been adopted by each regulatory body in Canada.

This handbook includes several appendices including a **Glossary of terms**. The first use of a term is hyperlinked to the glossary so that readers can immediately check the meaning of words or phrases.

Registered Professional Foresters

Professional forestry is a regulated profession in most Canadian provinces. The title used in English in Canada is "Registered Professional Forester" (RPF)¹. To be an RPF and practice professional forestry in some provinces, you must be a member of the local regulatory body of that province. You may be responsible for following their licensing regulations. Each regulatory body has a website with specific information about forestry practice within its jurisdiction. The regulatory bodies and their websites are provided later in this handbook. **Appendix One** summarizes the practice of professional forestry in Canada.

The assessment process

The assessment process has been adopted by each of the regulatory bodies in Canada². They work collectively through the **Canadian Federation of Professional Foresters Associations** (CFPFA) and have adopted a common set of competency-based requirements that applicants must demonstrate in order to become registered. These are termed Certification Standards. The assessment procedures provide a consistent method for regulatory bodies across Canada to verify your qualifications, knowledge, skills, and abilities (your competency) for formal recognition as an RPF.

¹ In the Province of Québec, the title used is "ingénieur forestier"

² Currently, Quebec is reviewing its certification standards and has deferred a decision in this regard

Certification Standards

An applicant's qualifications will be evaluated against seven **Certification Standards** for the practice of professional forestry in Canada. The Standards are available from the CFPFA website. Each standard is described by **demonstrable competencies** with related **performance indicators**:

Standard 1: Tree and Stand Dynamics

Standard 2: Forest to Landscape: Structure, Function and Dynamics

Standard 3: Forest Management

Standard 4: Economics and Administration of Forestry

Standard 5: Leadership Skills: Communication and Critical Reasoning

Standard 6: Information Acquisition and Analysis

Standard 7: Professionalism and Ethics.

Registration requirements

To be considered for registration, applicants must meet the following four requirements:

1. Graduated from a 4-year, **science-based** baccalaureate degree program, or **equivalent**.
2. Demonstrate that you meet the competencies of the current Certification Standards.
3. Demonstrate local knowledge and a commitment to professionalism and meet requirements for good character.
4. Have local work experience or acceptable equivalent experience.

The process outlined in this manual is used to assess criteria 1 and 2 above. Although work experience may contribute to demonstrating competencies in criterion 2, each regulatory body has its own processes regarding criteria 3 and 4. One of the provincial regulatory bodies will advise and evaluate applicants regarding their specific application processes and fees, work experience, good character and local knowledge/jurisprudence requirements. Applicants should contact the regulatory body where they plan to work to familiarize themselves with these requirements.

Notice to Applicants

This application process is time consuming and requires commitment to complete properly. A poorly prepared application reflects poorly on the applicant. The applicant's job is to convince the assessment panel of their qualifications. This is a difficult process, sloppy work is not permitted; expect to spend considerable time collecting information, and completing the forms required and preparing a complete application. Don't be lazy, don't fill with fluff, provide details and specificity. Applicants need to do the groundwork and dig up the information required. This may be difficult in cases where the courses were taken several years ago, and in foreign applications. Remember that a poorly prepared application reflects poorly on the applicant.

Application at a Glance

What are the requirements?

To be considered for registration, you:

1. Have graduated from a four-year, science-based baccalaureate degree, or equivalent
2. Can demonstrate that you meet the competencies of the current Certification Standards.
3. Can demonstrate your commitment to professionalism.
4. Have work experience as described in the Certification Standards.

What must I do to become registered?

You will use the process outlined in this manual to demonstrate the requirements of (1) and (2) above. Requirements (3) and (4) will be assessed separately by each regulatory body. Regulatory bodies will advise you and should be your first contact when thinking about applying under this process.

The following diagram outlines the two pathways to recognition as a suitable candidate for professional forester status that are supported by this manual:

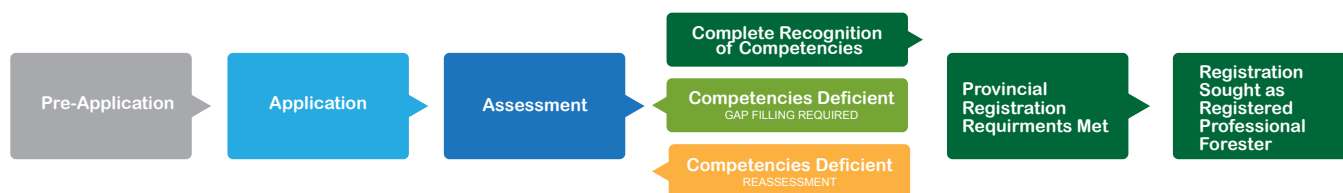


Figure 1: Pathway to professional registration for applicants from non-accredited forestry programs.

Pathway to registration:

- For applicants who fully demonstrate the required competencies.

Pathway to skills upgrading:

- For applicants who must obtain additional, or must upgrade existing, competencies in order to practice.
- This pathway may involve skills upgrading, continuing education, and/or reassessment.

Non-Recognition:

Alternate Occupations - for those who do not appear qualified or are likely to become qualified with reasonable effort, the regulatory body may offer suggestions regarding alternative occupations. The extent of such support will vary among the provinces.

What are the timelines for application?

An applicant may begin the assessment process at any time. Potential applicants must make initial contact with the provincial regulatory body to understand the process, requirements, and the next steps to proceed. During the pre-screening and application periods [1-8], you will be informed of specific provincial conditions. To avoid delays later on, it is important to ask questions and clarify requirements during the application stage.

The regulatory body will clearly communicate the next assessment **deadline date** and identify when complete application portfolios must be received.

What are the costs associated with application?

Applicants are responsible for all the costs associated with the application and the assessment process. The CFPFA will try to keep assessment costs as low as possible. CFPFA and any regulatory body fees are non-refundable and must be paid to the local regulatory body no later than the time the application portfolio is submitted.

Assessment fees (all amounts in Canadian funds) may be adjusted from time to time in order to accommodate actual costs incurred for assessment.

Fees for assessment include the following:

1. Assessment Costs:

Assessment fee: \$500

Payable no later than the submission of the application portfolio

Targeted Competency Reassessment fee: \$200

Applies only if you request reassessment of specific competencies that were found to be deficient.

Complete Reassessment fee: \$500

Applies only if you request a total reassessment of your submission, after you are found to have deficient competencies.

2. Regulatory Body Fees:

These are set and applied at the discretion of the individual regulatory body. Check with your provincial regulatory body to determine if any of these will apply.

- Enrolment fee (variable, depending on regulatory body).
- Administrative fee of \$100 (may be applied during the application and assessment phases, and during gap-filling, when procedural work, supervision, and reassessment by the regulatory body are required).
- Exam fee (variable and dependent upon whether or not the regulatory body has a registration or jurisprudence exam).
- Annual membership dues and registration fees (as posted on regulatory websites).

3. Other Costs:

Costs payable to other organizations (if applicable):

- Costs of transcripts and translation (if applicable).
- Costs of credential assessment.
- Costs of filling competency gaps (i.e., tuition).

Who pays for my assessment?

All costs for the application and assessment are to be paid by the applicant.

What about language?

While this assessment process does not involve language proficiency criteria or testing, applicants must be able to complete the application process, communicate well with regulatory bodies and assessors, and meet articling or experience requirements. Proficiency in the language(s) of the intended province of practice will be a distinct asset. The application documents must be submitted in the language(s) of the regulatory body to which the application is being made.

Please note that although the regulatory bodies do not have a specific language requirement, a significant level of language and interpersonal communication skills are essential for employment.

Do I have the potential to qualify?

Applicants may have a variety of educational and professional backgrounds. For example, applicants may:

1. Be professionals who practice in another country.
2. Have experience and training in a field related to forestry, such as geographic information systems (GIS), wildlife biology, hydrology, engineering, or others.
3. Be graduates of non-accredited forestry programs in Canada.
4. Be graduates of forestry programmes in countries other than Canada.
5. Have sufficient education and related experience to meet the requirements of the assessment process.

Brief applicant profile examples appear in **Appendix Two**.

When Can I apply?

You may have your education and experience recognized under this process at any time. Make early contact with the regulatory body in the province where you expect to practice.

If you are currently practicing forestry in another country, and plan to immigrate to Canada, some of the work required to complete an application can be done before coming to Canada. Collecting the required documentation, including transcripts, educational, and witness materials, will likely be easier if you start before emigrating.

Assessments are conducted twice a year.

Deadlines for applications are January 1 and July 1. This is the date before which you must receive written confirmation from the provincial regulatory body that your submission portfolio is complete.

Guiding Principles

The following principles were fundamental to developing this assessment process. They will continue to guide all those who participate in the process.

Fairness

The criteria used to determine competence are objective and reasonable, and free of bias. All applicants, regardless of country of education or training, are assessed to the same standards. The methods and materials used for assessing demonstrable competencies are both necessary and sufficient for determining whether occupational standards are met. Results of assessment will be stated clearly and include a rationale for the decision. Assessment processes are efficient and avoid duplication. What you have learned is important - not where you learned it. Formal education as well as learning from life and work experience will be considered equally.

Transparency

Requirements for applying, methods for assessment, and criteria for determining competency are fully described, easy to understand, and accessible. Applicants will be informed of all remaining options if full recognition does not initially occur.

Timeliness

Assessment and recognition of demonstrable competencies, including communication of assessment decisions, are carried out promptly and efficiently. Regulatory bodies strive to provide enrolment/registration decisions to applicants within one year of the application submission deadline.

Consistency

Methods for assessment, including criteria used for recognition of demonstrable competencies, are accepted across all forestry regulatory bodies of the CFPFA (Québec excepted). Results of assessment are recognized nationally ³.

³ Currently, Quebec is reviewing its certification standards and has deferred a decision in this regard

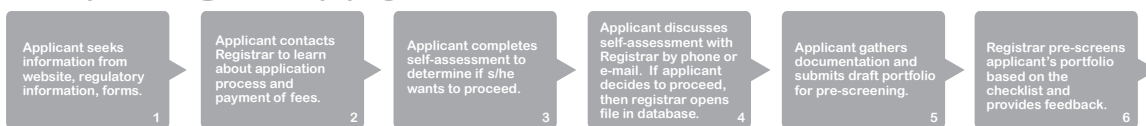
Application Overview

The application process includes several components to assist you with your application as well as to determine your competencies. There may be some variation depending on your intended province of practice and the unique enrolment, registration, and membership requirements of each regulatory body.

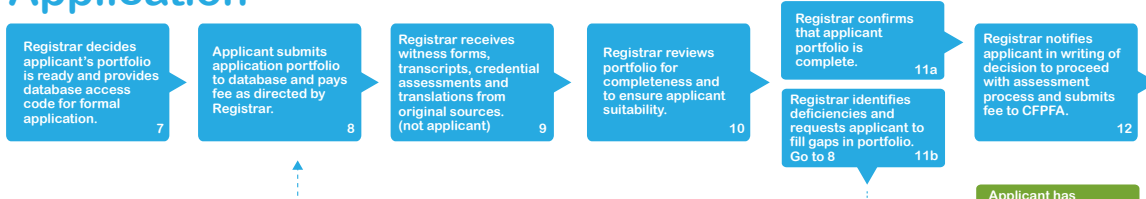
The Application Process

The following diagrams outline the steps you must follow to become an RPF.

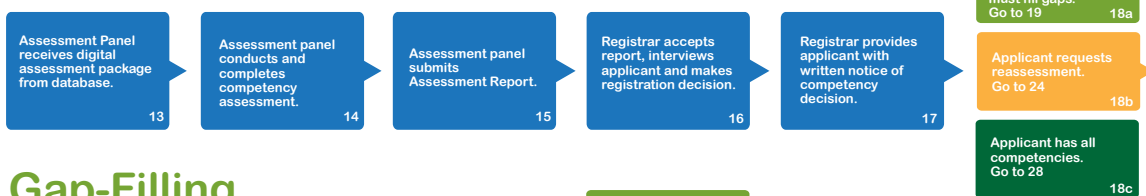
Preparing to Apply



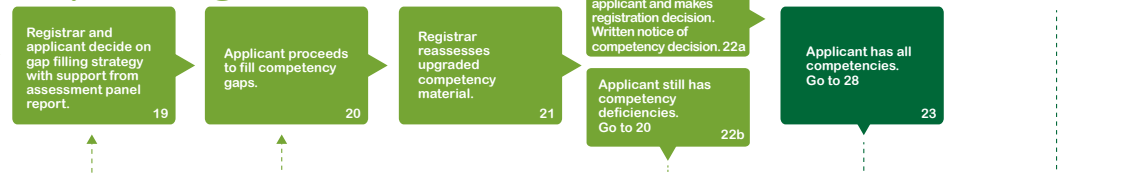
Application



Assessment



Gap-Filling



Reassessment

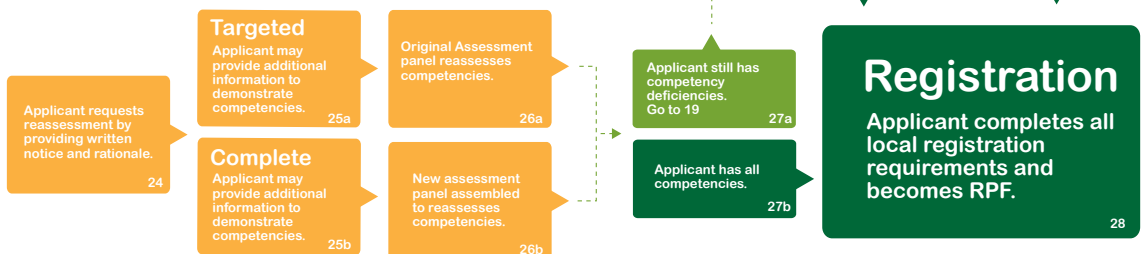
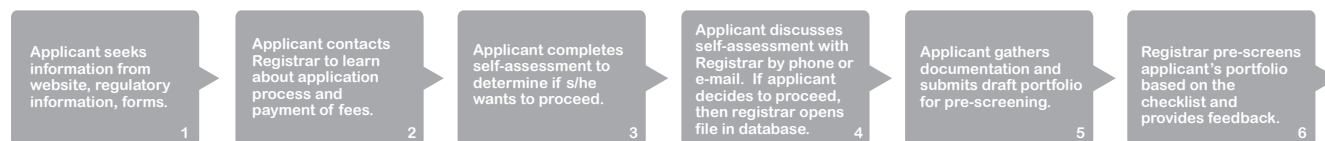


Figure 2: Flowchart showing the complete assessment process from pre-application to registration.

Note that process numbering is referenced in square brackets [#] throughout this document

Preparing to Apply

Follow the steps outlined below when you begin the application process.



Visit the website for information, forms and procedures [1].

Applicant seeks information from website, regulatory information, forms. 1

This website includes a brief introductory video, contact information for the provincial regulatory bodies and all of the forms required to complete the application process.

See www.cfab.ca/cfpfa-fcafp for general information as well as digital materials that will help you with your application

Contact the regulatory body in the province where you plan to practice [2].

Applicant contacts Registrar to learn about application process and payment of fees. 2

Regulation of professions is a provincial responsibility in Canada. Begin by contacting the regulatory body in the province where you plan to practice. The website has an interactive map to assist with this.

If you plan on practicing in more than one province, discuss this with each of the regulatory bodies. You will be assigned a “lead” regulatory body that will guide you through the application and assessment process. You will only pay the assessment fee once. However, you must subsequently register in each province where you intend to practice and pay fees in each.

When you make contact be sure to:

- Briefly discuss your qualifications, competencies, and the assessment process with the regulatory body.
- Get an understanding of the enrolment and / or registration process that will occur along with the assessment.
- Ask the regulatory body if this process is appropriate given your qualifications, experience, and career goals.
- Ensure the contact person responds to your questions. For example, if you do not have at least a four-year, science-based baccalaureate degree or equivalent, the regulatory body might advise that this assessment process is likely not ideal for you.

Complete the self-assessment matrix [3].

Applicant completes self-assessment to determine if s/he wants to proceed. 3

The Self-Assessment Matrix lists the required certification standards, demonstrable competencies and performance indicators. The matrix will help you identify your competencies. It also helps you to identify key pieces of evidence as proof of these competencies. The matrix outlines the demonstrable competencies that graduates from an accredited forestry program must have to meet the certification requirements. The Certification Standards provide more information on each standard, demonstrable competency, and performance indicator.

Language Tip

Be aware of the language used in the matrix to describe each indicator and competency. The verb used in each performance indicator indicates the type of competency required. The verb helps you decide if your skills and knowledge meet the indicator. Certain tasks require different levels of performance. Some require knowledge or comprehension while others require higher levels of performance such as application, analysis, or synthesis. A higher ability requirement would be the evaluation of products or activities within a competency area. For a list of verbs you may use to describe your own competency level and abilities, see Blooms Taxonomy in Appendix Three.

A sample self-assessment matrix is provided on the applicant website to give an example of the level of detail required.

Do not use **acronyms** or forestry **jargon**. Writing clearly will demonstrate professionalism and ensure that assessors understand the type and extent of your evidence.

Completing the self-assessment matrix will allow applicants to understand the degree to which they meet the competency requirements. After completing the matrix, you must have witnesses to sign-off your portfolio, as described below in the Witness section.

Pre-screen and gather feedback from the regulatory body [4].

Applicant discusses self-assessment with Registrar by phone or e-mail. If applicant decides to proceed, then registrar opens file in database.

4

After talking with the regulatory body, you should have a clear understanding of your potential for credential recognition and eventual registration as a professional forester. Should you decide to proceed, the regulatory body will direct you to the online application materials. The regulatory body will also explain details about format, timelines, fee structures, or specific provincial requirements. Take advantage of their expertise to clarify as much as possible.

Assemble supporting documents referenced in the Self-Assessment Matrix [5].

Applicant gathers documentation and submits draft portfolio for pre-screening.

5

Evidence should be concise, authentic, and integrated. Provide explanations in Column E of the Self-Assessment Matrix to clarify exactly how the evidence you cite demonstrates your competency. Evidence is unique to each applicant, so you may have additional and appropriate items.

Assemble additional supporting documents that are referenced in the Self-Assessment Matrix. These documents must be in digital format according to the File Naming Protocol in **Appendix 7**. Supporting documents may include, but are not limited to, the following:

- Presentation or workshop agendas and or minutes indicating that you attended or presented the material.
- Field camp course outlines.
- Portfolio of professional work products such as: forest development plans, community wildfire protection plans, pest management plans, stewardship plans, land use plans, forest management plans, requests for proposals, final project reports, or others, proposals (bid proposals or requests for proposals that you prepared), training materials that you developed or delivered, professional development plans, professional development reviews from your employers/supervisors, outlines of self-study and challenge exams.

Gathering evidence material will require significant time and effort. Give yourself enough time to do this part well.

Assessing your material will also require significant effort by the assessors and regulatory bodies. Make sure that your evidence is adequate to demonstrate your competency, but not excessive. One article of evidence may be used to demonstrate more than one competency.

Here is a summary of the other documentation required to complete your portfolio

Tips for Selecting Evidence:

*You should provide as much relevant evidence as possible to describe your abilities. Do not provide fluff, filler or superfluous material. Instead, provide only that information that show how you meet each **competency**. For example, you might have taken a course to provide you with the basic knowledge but have applied that knowledge on the job to become more competent in your performance of that competency. Remember that when assessors evaluate competency equal weighting is given to **education** and **experience**. Provide academic information (hyperlinks to current course outlines are helpful). Include work experience, job descriptions, work product descriptions, or other work-related documents that will help demonstrate your abilities. For each competency in the matrix cross-reference the evidence provided in your **curriculum vitae**, transcripts, course outlines, and other supporting documents. In cross referencing with your CV, use specific line numbers, not "lines 21-43". You should provide evidence that demonstrates convincingly that you are capable of using the knowledge you have gained to perform the duties and responsibilities described.*

Witnesses

Two types of witnesses are required to sign off on your portfolio. The first is a character witness who can attest to the character and repute of an applicant. Three character witnesses are required. The second type of witness, called a competency witness, is one who can attest to an your ability to perform the indicators and demonstrable competencies defined in the Self-Assessment Matrix. Each performance indicator that is validated with experience-based evidence (i.e., not validated by a course or course outline but instead by work or volunteer experience) is to be signed-off by at least one competency witness. When documentation for education is not available (for acceptable reasons as defined by the regulatory body) competency witnesses may also sign-off on evidence for education-based competencies. You are likely to have several competency witnesses.

Witnesses may act as both character and competency witnesses. Ideal witnesses are registered professional foresters/ingénieurs forestiers or the equivalent forest professionals in other countries. Witnesses may come from other professions as well. However, a competency witness must be familiar with the competency for which he/she is attesting. For example, a professional geologist is not the ideal witness to sign-off on a competency related to creating a forest management plan, although the geologist may have abilities in preparing certain parts of the plan. Witnesses should not be spouses or family members. Witnesses must complete the confidential Witness Feedback Form and provide it directly to the regulatory body. In addition they must review your Self-Assessment Matrix and initial the relevant performance indicators. If witnesses fail to provide completed forms, you will be informed that your application is incomplete and the assessment will not begin until the required Witness Feedback Forms are provided.

Arrange for official transcripts and certified translations

You should request official academic transcripts as soon as possible, especially if you are seeking documents from institutions outside Canada. Managing official document requests can be complicated and time consuming. All documents must be in the language of the regulatory body and must be sent directly to the regulatory body by the issuing institution and/or certified translator. You are responsible to pay any fees for transcripts and/or translations. Translations of transcripts into English or French must be done by a translator approved by the regulatory body. If your documents require translation, you must arrange for that translation with the regulatory body. This will ensure translators are appropriate. If your regulatory body already has your official transcripts on file, you are not required to provide a duplicate copy.

Degrees from institutions outside Canada must also be assessed for degree equivalency (not content) by a recognized assessment service. Your regulatory body will advise you on which services may be used, such as: International Credential Evaluation Services (ICES), World Education Services (WES), and University of Toronto Evaluation Service.

Program and Course Outlines

At the same time that you contact institutions for transcripts, you are advised to also obtain course and program description outlines. This may be especially important if you graduated several years ago and no longer have your own course information. If the institution has online resources to document past course content, providing links to the online information is encouraged. Note that there are significant differences in the type of course outline available. **Appendix 8** provides 3 examples. The first 2 are acceptable because they are detailed and substantive. The third is unacceptable because it is too brief.

In very rare circumstances, some applicants may not be able to arrange for transcripts or documents describing their academic history because of their circumstances upon immigration (e.g., refugees) or because of the social and political climate in the country where studies were completed. In such cases, applicants should discuss with the regulatory body providing sworn statements in lieu of transcripts.

Create an up-to-date curriculum vitae (CV)

Loosely translated as course of life, a CV provides an overview of a person's life and qualifications. A CV is more than a resume; a CV details your responsibilities, level of responsibility/professionalism, learning outcomes, and the period during which you were involved in the activities. The CV should detail your life experiences both in Canada and abroad and include information about the following: Education, work experience, membership in professional organizations, volunteer activities, community involvement, continuing education, professional projects and leadership.

To insert line numbers in a Word document, choose: File, Page Set-Up, Layout, Add Line Numbering, Continuous. In Windows Vista Word, choose: Page Layout, Line Numbers, Continuous.

Your CV will be used to evaluate your level of professionalism and work experience to determine if competencies have been adequately demonstrated. For this reason, you should be accurate and thorough in documenting your experience. Be truthful when choosing language to accurately describe your own level of competency. Please avoid the use of acronyms in all your application materials. Assessors come from across Canada and forestry jargon varies by jurisdiction. If you do use acronyms, please define each one at first use. Your CV must be cross-referenced in the Self-Assessment Matrix. Use line numbers. Study the Sample CV in **Appendix 6** for a suggested format.

Write an Applicant Declaration

The Applicant Declaration is a signed document that advocates for your abilities and credentials. It gives the assessors and regulatory body an overview of your professional competence. More importantly this declaration provides an opportunity for you to write a personal message about why you think you should be considered for registration as an RPF. The other documents and evidence in your application appear mostly in point form. This declaration will require careful writing to provide a solid rationale. The declaration will be no more than two pages, single-spaced. Please do not simply repeat your CV.

You must sign and date the declaration and include a digital version in your application portfolio. You must also include the following sentence above your signature:

"I understand that making false or misleading statements in this application may be considered professional misconduct. Such statements may result in expulsion from the assessment process, loss of assessment fee and, if discovered later,

The following items are required in the application portfolio:

- ✓ Assessment Submission Form, including completed application checklist
- ✓ Current Curriculum Vitae (CV)
- ✓ Completed Applicant Declaration (see [Appendix 5](#))
- ✓ Transcripts from educational institution(s)
- ✓ Translation of transcripts into English or French as required by the provincial regulatory body
- ✓ Course outlines, with complete detail of courses identified in the Self-Assessment Matrix and necessary translations
- ✓ Formal credential assessment completed by an independent and recognized third party
- ✓ Completed Self-Assessment Matrix including witness signatures attesting to the validity of applicant's self-assessments
- ✓ Completed Competency and Character Witness Feedback Forms
- ✓ Fees (as directed by your regulatory body)

disciplinary action by the regulatory body, up to and including removal from the professional regulatory body."

For a Sample Applicant Declaration, see [Appendix 4](#).

Build your application portfolio

As mentioned, the application process takes significant time and effort. With the exception of original transcripts, translations, and degree assessments that must be sent directly from the issuing institutions to the regulatory body, your entire portfolio must be in digital format. Refer to the [File Naming Protocol in Appendix 7](#).

Helpful tips for preparing your application portfolio:

- You may have gained required qualifications, knowledge, skills, and abilities (competencies) from several sources, such as academic program content, documented work experience and additional continuing education and workshops;

- All learning methods will be considered equally, provided that you document how you gained each competency;
- If you graduated from a non-CFAB-accredited program and have work experience in a field related to forestry, it is important to document the relevance of your work as it relates to professional forestry
- Although you might have extensive work experience, each regulatory body has their own work experience guidelines, which may limit the amount of relevant foreign or related professional work that can be recognized in Canada.
- Submit the application portfolio in the language(s) of the regulatory body to which you are applying. Please seek clarification from the regulatory body if this is unclear.
- Gathering evidence and material to document and demonstrate your competencies will require significant time and effort. Give yourself enough time to do this part well as it can save time and money later on.
- Even if witnesses sign off specific indicators and demonstrable competencies in your Self-Assessment Matrix, the assessment may identify competency gaps in these areas if your education or experience is not sufficient.

Registrar pre-screens applicant material [6].

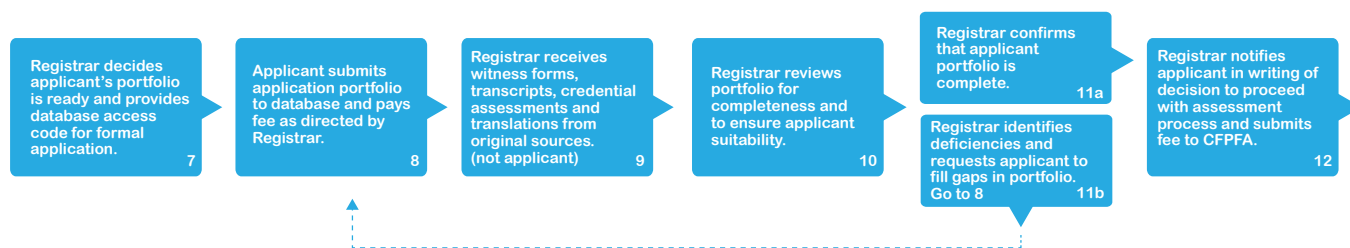
Registrar pre-screens applicant's portfolio based on the checklist and provides feedback.

6

The Registrar will review your documents for completeness. This is not an assessment of your credentials but rather a review of the content and format. The Registrar may request that you make revisions to this documentation prior to making a formal application.

Note that simply participating in this process does NOT guarantee your registration. You will be assessed against the required competencies. Also, becoming registered does NOT guarantee job placement.

Application



Receive access to the Database [7].

Registrar decides applicant's portfolio is ready and provides database access code for formal application. 7

Once the Registrar is satisfied with your documentation, you will be provided access to the database. See **Appendix 9** for more information about using the database.

Submit your application portfolio [8]

Applicant submits application portfolio to database and pays fee as directed by Registrar. 8

Prior to one of the biannual deadline dates, submit your application portfolio to the regulatory body. In addition, you will be required to pay the non-refundable assessment fee as directed by the Registrar. Your entire portfolio must be in digital format, according to the **File Naming Protocol in Appendix 7**. Remember that official transcripts, credential assessments and translations, if required, are to be sent directly from the issuing institution. Witnesses are to provide completed forms directly to the Registrar. The database lists all the items required in your portfolio. Carefully submit each item to ensure it is included in your portfolio.

After submitting your portfolio, you are strongly advised to keep in touch with the regulatory body to ensure that there are no missing documents, that all your witnesses have provided completed Witness Feedback Forms and issuing institutions, as required, provide transcripts, credential assessments and translations. Please retain a digital copy of your portfolio submission for your own records.

Registrar receives additional documents [9].

Registrar receives witness forms, transcripts, credential assessments and translations from original sources. (not applicant) 9

Witnesses must submit completed forms directly to the Registrar. The issuing institutions, as required, must provide transcripts, credential assessments and translations. You are responsible for ensuring that these documents are sent to the Registrar.

Applicant information reviewed for completeness [10].

Registrar reviews portfolio for completeness and to ensure applicant suitability. 10

The Registrar will review the application portfolio for completeness. The regulatory body will receive official academic transcripts, translations, and witness forms to add to your portfolio.

If the application portfolio is not complete [11b] or any information is deemed inadequate, the regulatory body will identify obvious deficiencies and notify you. Your responsibility is to supply the missing materials. Your portfolio will not be assessed until all the missing information has been provided. When required information has not been provided, the provincial regulatory body may charge an administrative penalty to cover any extra costs (see costs section).

Registrar confirms that applicant portfolio is complete. 11a

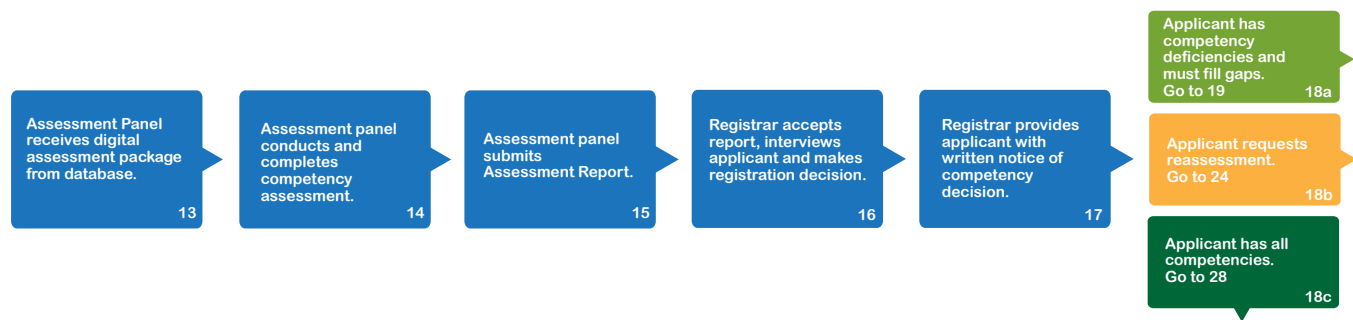
Registrar identifies deficiencies and requests applicant to fill gaps in portfolio. Go to 8 11b

Registrar notifies applicant in writing of decision to proceed with assessment process and submits fee to CFPFA. 12

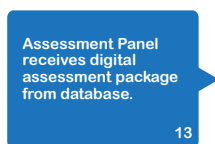
Regulatory body notifies applicant that the portfolio is complete [11a-12]

When the regulatory body is satisfied that the portfolio is complete, you will be notified in writing. This step must be completed prior to one of the application deadlines: January 1 or July 1. Also, this is the date from which the 1 year time frame to complete the assessment is determined

The Assessment Process

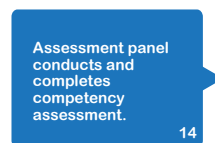


Application package sent to assessment panel [13]



After an application portfolio is deemed adequate for assessment, it will be sent to the assessment panel. Assessment panels meet twice a year to assess applications. At this point, the regulatory body will inform you that the assessment panel may initiate subsequent contact regarding the portfolio if they have questions or require clarification.

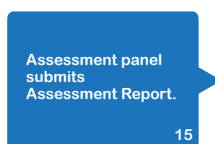
Assessment panel meets [14]



The assessment panel receives the assessment package and all other necessary documents from the regulatory body. The assessors will review all your documentation and evaluate your qualifications, knowledge, skills and abilities as they relate to the demonstrable competencies and certification standards.

There may also be witness background checks. The goal of the background check is to provide evidence that the witness has adequate knowledge of the applicant's education and experience relative to the demonstrable competencies as identified in your Self-Assessment Matrix. The process may be formal or informal depending on the assessment panel and the witnesses. If the assessment panel has any concerns about a witness's ability to sign off on the applicant's submission, the panel leader will discuss this with the regulatory body. The regulatory body may choose to contact the applicant and ask for additional witnesses. If the panel has questions or needs clarification during their evaluation of your package, they will contact you directly.

Assessment Report submitted [15]



After careful review and discussion of your application, the assessment panel completes an assessment report with one of the following set of findings:

1. Your portfolio demonstrates that you adequately meet the demonstrable competencies; or
2. Additional information is required. The panel will identify what is missing. The regulatory body then contacts you directly with a request for the required information. Once you provide the additional information, it will be evaluated and your assessment completed; or
3. Your portfolio does not adequately demonstrate that you meet the demonstrable competencies. The assessment report identifies the areas of deficiency and suggest appropriate gap filling activities such as training or work experience.

The assessment panel's assessment report is considered confidential but may be provided to you on request. The assessment report becomes part of your file with the regulatory body.

Final applicant interview [16]

Registrar accepts report, interviews applicant and makes registration decision.

16

After receiving the assessment report, the regulatory body conducts a final applicant interview. Your interview may be conducted in person, over the phone, or by using other conferencing tools. The final interview is informal and has no required structure or format. Regulatory bodies may also use the interview to seek clarification on any deficiencies that were identified by the assessment panel.

The interview is also an opportunity for regulatory bodies to explain the steps to enrolment and / or registration with the provincial body.

Competency decision is provided [17]

Registrar provides applicant with written notice of competency decision.

17

After reviewing your assessment report and conducting the applicant interview the regulatory body makes the registration decision. You will be notified in writing of the decision, including an explanation of that decision, and summary of next steps. If you are found to have all competencies [18c], you may proceed directly to registration process [28].

Applicants with outstanding learning or experience requirements will receive guidance from the regulatory body about gap-filling or supplemental activities [18a]. Gap filling is described below.

If you disagree with the assessment report, you may request either a targeted or a complete reassessment [18b]. The reassessment process is described below.

How long is my assessment report valid?

Your competency assessment is considered valid for five years from the date of the assessment panel's report. Once you have obtained your RPF status in one province you will be able to transfer your status to a different province without a reassessment

Gap Filling

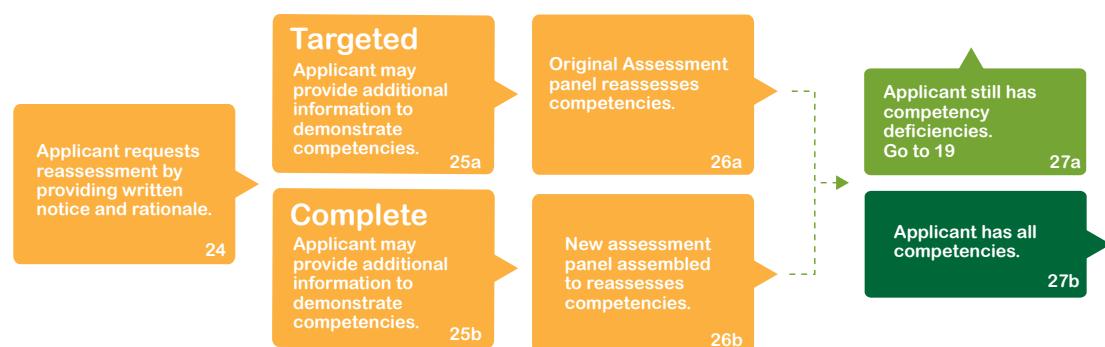


In situations where your demonstrable competencies are not adequate, you will be notified and deficiencies will be identified [18a].

The regulatory body will discuss supplemental activities that can help you to learn or gain experience in the competencies that are lacking. Work with the regulatory body to identify appropriate **gap-filling activities** that will help you to develop the missing demonstrable competencies [19]. Complete these gap-filling activities and thoroughly document the process to prove that you have gained the missing competencies [20]. Thoroughly describe your activities, the learning outcomes, and any additional relevant information. Keep in regular contact with the Registrar during this time to ensure the work is appropriate and you are following the requirements. The regulatory body will reassess your demonstrable competencies after completion of gap filling activities [21]. Discuss these results with your regulatory body. Once all gaps have been filled, you will advance to registration and enrolment as an RPF.

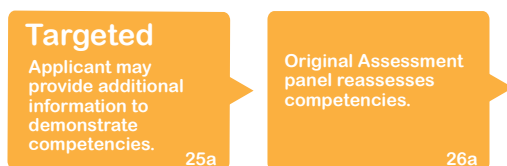
You will have five years from the date you are notified of the missing competencies to gain them.

Reassessment



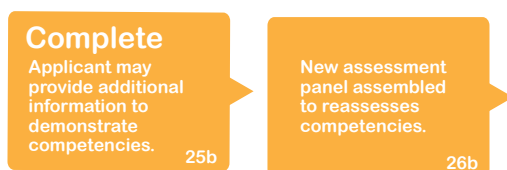
If you do not agree with the results of the assessment report, you may request a reassessment [24]. This request must be in writing, must be provided to the regulatory body within 30 days of receiving the assessment decision and must present the arguments in support of the reassessment clearly identifying any evidence that may not have been taken into consideration. The notice must also indicate which reassessment method is being requested:

1. Targeted Competency Reassessment [25a-26a]:



If you supply new or additional information in support of your reassessment, the original assessment panel will complete a targeted competency reassessment. This reassessment costs \$200 and must be paid with submission of the written notice requesting reassessment. The new or additional information must be received within 90 days of the original written competency decision;

2. Complete Reassessment [25b-26b]:



You may also request a complete reassessment, and may provide additional information in support of your application. A new assessment panel will be assembled to do a second competency assessment. The fee for this complete reassessment is \$500, the same as for the initial assessment. The fee must be paid with submission of the written notice requesting reassessment. If a complete

reassessment results in the decision that an applicant does in fact demonstrate all competencies then the reassessment fee will be refunded.

Following the reassessment you will be provided with written notice of the outcome as soon as practicable [27a-b]. Keep in mind that reassessments may identify additional competency deficiencies beyond those found in the initial assessment, in which case gap filling will be required [27a].

The reassessment decision is final.

Registration

Once you have demonstrated that you have all of the demonstrable competencies, your regulatory body will guide you in completing any applicable articling / mentoring periods, experience requirements, and jurisprudence / policy / ethics exams leading to registration as an RPF [28].

Registration

Applicant completes all local registration requirements and becomes RPF.

28

Roles and Responsibilities

Your role in the application process is very important. To help you better understand the application and assessment process, here is a summary of the roles and responsibilities of the various groups and individuals.

Applicants

Applicants must:

- Study and follow all directions in this Handbook for Applicants;
- Provide Witness Feedback Forms to your witnesses;
- Ensure these forms are sent directly to the regulatory bodies ;
- Arrange for a recognized credential assessment agency to review your education and credentials and send a report directly to the regulatory body, if required by the regulatory body. These are generally necessary if you have graduated from an institution outside Canada;
- Compile and submit a clear, complete, concise, and truthful application portfolio. Arrange for official transcripts and any other third party reports to be sent directly from issuing institutions to the regulatory body;
- Arrange for translations of course outlines and other documents in either English or French, as required by the regulatory body. Translated documents must be certified by acceptable translators at the cost of the applicant;
- Provide additional information and supporting documentation as requested.
- Participate in the final applicant interview.
- Pay all applicable fees;
- Accept the decision of the regulatory body or request reassessment.

Witnesses

Two types of witnesses are required to sign off on an application portfolio. The first is a character witness who can attest to your character and repute. Three character witnesses are required. The second type of witness, called a competency witness, is one who can attest to your ability to perform the indicators and demonstrable competencies defined in the Self-Assessment Matrix. Each performance indicator validated with experience-based evidence (i.e., not validated by a course or course outline but instead by work or volunteer experience) is to be signed off by at least one competency witness. When documentation for education is not available (for acceptable reasons as defined by the regulatory body) competency witnesses may also sign-off on evidence for education-based competencies. You are likely to have a number of competency witnesses and more than one can sign off on each indicator.

Competency witnesses must:

- Have in-depth knowledge of your demonstrable competencies as a forest professional;
- Initial each performance indicator confirming that you meet that specific knowledge or skill level.

Witnesses may:

- Act as both character and competency witnesses. Ideal witnesses are registered professional foresters/ingénieurs forestiers or the equivalent forest professionals in other countries;
- Come from other professions as well. However, a competency witnesses must be familiar with the competency for which they are attesting. For example, a professional geologist is not the ideal witness to sign-off your competency related to creating a forest management plan, although the geologist may have abilities in

preparing certain parts of the plan;

All witnesses must complete the Witness Feedback Form and send it directly to the regulatory body.

If witnesses fail to provide completed forms, you will be informed that the application is incomplete and the assessment will NOT begin until the required Witness Feedback Forms are provided.

Regulatory bodies and assessment panels will conduct witness background checks to satisfy themselves that the witnesses are appropriate.

Professional Forester Regulatory Bodies

Each regulatory body provides consistent levels of assistance to applicants by:

- Being the point of contact for applicants;
- Providing information and guidance on the process, including internet web page resources and answering specific questions about the assessment process;
- Pre-screening whether an applicant's qualifications meet the basic requirements;
- Sets and collects applicable fees;
- Is the receiving agent for all documents directly from an approved third party, such as official transcripts and credential assessment of foreign degree authenticity with Canadian equivalency level;
- Receives documents from third parties to become part of the applicant's portfolio;
- Informs applicants of any obvious deficiencies in the application portfolio;
- Provide assessment panels with complete digital application portfolios;
- Makes the final competency decision and sends a written report to the applicant;
- Discusses assessment outcomes with the applicant;
- Provides guidance about any supplemental learning or experience requirements that might be needed if competencies are not fully met;
- Administers applicant's gap-filling phase, if needed, by suggesting supplemental activities to help candidate complete the requirements and assessing whether supplemental education, training and experience gained during the gap-filling phase are adequate to demonstrate competency;
- Works with applicants that have demonstrated competency to become registered; and
- Works with other regulatory bodies and the applicant to identify a lead regulatory body if an applicant intends to practice professional forestry in more than one province.

Assessors and Assessment Panels

Assessment panels are comprised of 3 forestry professionals. Assessors may be practicing forest professionals who are experienced with the required competencies or may be instructors of forestry programs in educational institutions. Assessors are selected based on their expertise in a specific field or by their breadth and depth of knowledge in general forestry matters.

Assessment panels:

- Evaluate the evidence provided in **applicant portfolios**;

- Discuss applicant competencies with other assessors and decide whether the evidence presented is adequate to address each demonstrable competency;
- Consult with other experts, if required, to better understand the evidence provided;
- Conduct witness background checks, as needed, to clarify the applicant's competencies;
- May communicate directly with applicants, or, ask regulatory bodies to seek further clarification on their behalf;
- Keep assessment results confidential;
- Will not divulge any information about the outcome of the assessment or share possible strengths or deficiencies;
- Report the assessment findings to the regulatory body;

*NOTE: Assessors do not make enrolment or **registration** decisions. They complete an assessment of your competencies and report their assessment to the **regulatory body** for final decision.*

Acknowledgements

This process is aimed at increasing the diversity of those practicing professional forestry in Canada by including professionals from a broad educational and experiential background. All those involved are optimistic that professional forestry in Canada will benefit greatly from this inclusion and look forward to the contribution of applicants who become registered professional foresters under this assessment process.

All those involved in developing this process, as well as those involved in using the assessment procedures, would like to acknowledge the generous efforts and contributions of assessment panels and assessors. Without your expert knowledge and contributions of untold volunteer hours, recognizing competencies under this process would not be possible. Our sincerest gratitude is extended to volunteers for helping to make this process possible.

The following CAA members have provided significant guidance to these assessment procedures:

- Jacques Begin– Chargé de Projet / Project Manager, OIFQ
- Tony Jennings – Registrar and Executive Director, Ontario Professional Foresters Association;
- Conrad Malilay – Manager Registration, Association of BC Forest Professionals
- Ian Millar – Executive Director, Nova Scotia, Registered Professional Foresters Association
- Lorne Riley – Executive Director, Canadian Forestry Accreditation Board;
- Randy Trerise – Registrar, Association of BC Forest Professionals

The following individuals developed all training material and lead initial training sessions:

- Bruce Blackwell, RPF - BA Blackwell and Associates Ltd;
- John Cathro, RPF - Cathro Consulting Ltd;
- Gretchen, Prystawik, RPF
- Dan Trobak - Brandcrafted Design



Appendix 1: Glossary

The following definitions ensure consistent understanding among regulatory bodies, applicants, and assessors. Many definitions below have been previously defined by regulatory bodies, cross jurisdictional teams, and other organizations for assessment, accreditation, or registration purposes.

A

Accreditation: a process of education assurance through which formal recognition of the quality and necessary curriculum content of a program of study is conferred by a responsible authority. In the professional forestry context in Canada, the CFAB is the responsible authority empowered to assess university level programs on behalf of the provincial professional forester/ingénieurs forestiers regulatory bodies and to determine whether they deliver the academic requirements for entrance into the profession. The CFAB conducts its accreditation assessments on a national basis for, and on behalf of, each of these regulatory bodies who have agreed, collectively, to abide by its decisions.

Accreditation Standards: criteria approved by the CFPFA member agencies (currently, l'Ordre des ingénieurs forestiers du Québec (OIFQ) is reviewing its certification standards and has deferred a decision in this regard) and used by the CFAB for assessment of university forestry programs. The Accreditation Standards are based on, and are fully harmonized with, the Certification Standards.

Acronyms: words formed from the initial letters or groups of letters of words in a set phrase or series of words, as in "RPF" from Registered Professional Forester.

Allied program: a course of study related to, or allied to, forestry. Allied programs include, but are not limited to, the following: biology, hydrology, environmental science, forest engineering, geography, and geographic information systems (GIS).

Applicant Declaration: a two-page, single spaced document (written by the applicant) that advocates for his/her demonstrable competencies.

Application Portfolio: the total package submitted by an applicant to demonstrate competency.

Articling Period: a period of internship required in some provinces where an **enrolled member** is mentored, sponsored, and/or supervised by a fully registered member who agrees to take responsibility for his/her training and development.

B

C

Canadian Forestry Accreditation Board (CFAB): an independently functioning body established in 1990 by the provincial professional forester/forest engineer associations of Canada and the Canadian Institute of Forestry. Its role is to provide a service to its member agencies (the CFPFA regulatory bodies) for the accreditation of forestry programs, at the baccalaureate level or higher, for the purpose of determining if the academic requirements for professional certification (registration) are being met.

Canadian Federation of Professional Foresters Associations (CFPFA): a body comprised of the provincial professional forester/forest engineer associations of Canada, the Canadian Institute of Forestry and the Canadian Forestry Accreditation Board. Its mandate is to act as an advocate for, and as a forum for discussion on, matters identified by the member agencies as having national importance or consequence.

Central Assessment Authority (CAA): a sub-group of the Canadian Federation of Professional Foresters Associations charged with overseeing the credential assessment process for foreign-trained applicants and graduates of programs not accredited by the Canadian Forestry Accreditation Board.

Certification: the authoritative endorsement by a governing body that a person has attained occupational proficiency. In the professional forestry context, certification means that an individual's qualifications have been assessed by one or more of the professional bodies to determine whether the requirements for entry into the profession have been met.

Certification Standards: criteria approved by the CFPFA member agencies (currently, Québec is reviewing its certification standards and has deferred a decision in this regard) to determine whether the requirements for entry into the profession have been met. The Certification Standards were the basis for and are fully harmonized with the Accreditation Standards.

Competency: a standardized requirement for an individual to properly perform a specific job. It encompasses a combination of knowledge, skills, and behaviour utilized to improve performance. More generally, competence is the state or quality of being adequately qualified; having the ability to perform a specific role.

Curriculum vitae (CV): an overview of a person's life and qualifications and includes details on education, work experience, volunteer activities, and anything else that may provide insight into an individual's training and qualifications.

D

Deadline date: the last possible date that an application package will be received by the regulatory body. The submission deadline date for the application portfolio may change from year to year depending on the number of applicants to be assessed and other factors.

Demonstrable competencies: the listed skills, knowledge and abilities, organized into seven standards that form the core academic requirements in both the Certification Standards and the Accreditation Standards. The standards describe the principle, relevant components, demonstrable competency requirements, and performance indicators, arranged in a progression of understanding. For registration, demonstrable competencies are assessed at the entry level. This is the level of, or is equivalent to the level of, a new graduate of an accredited university forestry program.

E

Education: any formal learning experiences that have had a formative effect on the mind, character, or physical ability of an individual, relevant to the profession of forestry. Education can be in the realms of knowledge, skills, and values.

Enrolled member: an applicant who becomes a member of a professional association as a forester-in-training, provisional forester or the like, while completing the registration requirements to become a professional practitioner (RPF or ing.f). (The designation may not apply in all jurisdictions.)

Equivalent: equal in value, measure, force, effect, significance or corresponding in position or function. In this process, "equivalence" could be demonstrated by the applicant providing evidence of having taken, and passed, a number of technical and/or university courses, which in combination, can be considered to have covered the material to the same depth and breadth that the material would have been covered in a four-year science-based degree. Further, the evidence of equivalence, and thus competency, in a subject may be established by an applicant's detailed work experience and participation in the preparation of papers, articles and presentations.

Experience: knowledge of, or skill in, or observation gained through practice in, or exposure to, a thing or event.

F

G

Gap-filling activities: the activities in which an applicant gains additional education or experience to meet identified competency deficiencies.

H

I

Ingénieur forestier (ing.f.): an individual who, through membership in l'Ordre des ingénieurs forestiers du Québec (OIFQ), is entitled to use a protected title and is licensed to practice professional forestry in the province of Québec.

J

Jargon: the language, especially the vocabulary, peculiar to a particular trade, profession, or group.

K-L-M-N-O

P

Performance Indicator: a specific statement describing what a candidate will be able to do in a “measurable” way. It functions as a reference point in evaluating whether an applicant has met the evidentiary tests for a demonstrable competency requirement.

Prior learning assessment and recognition (PLAR): a means of recognizing knowledge and skills that people gain from previous experience and education including academic study, work and other formal or informal learning activities. PLAR supports opportunities for individuals to have relevant learning recognized and counted towards a qualification. It is intended to treat applicants equitably, without discrimination based on the source of their learning.

Q

R

Registered Professional Forester (RPF): an individual who, through membership in one or more of the professional foresters associations in Canada (Québec excluded), is entitled to use a protected title and/or is licensed to practice professional forestry within a defined geographical jurisdiction (province).

Registration: the act of recognizing an individual's qualifications and entering them in the register of the profession.

Regulatory body or regulatory authority: an organization with authority to control the use of a restricted title (e.g. RPF) and/or license a person to practice the restricted trade or profession within a defined jurisdiction.



S

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

Self Assessment Matrix: a spreadsheet that integrates the documents in an applicant's portfolio to demonstrate competencies. Each demonstrable competency and standard in the matrix must be addressed by the applicant and must be signed off by a witness.

T-U-V-W-X-Y-Z

Appendix 2: The Practice of Professional Forestry in Canada

Potential applicants should understand the practice of professional forestry in Canada to appreciate the responsibilities and benefits of registration.

Professional forestry is a regulated profession in most Canadian provinces. Like other professions, it is founded upon specialised education and training and holds the protection of the public interest as its primary mandate. The purpose of a formal profession is to supply unbiased decisions, actions, counsel, and service to others, wholly apart from the expectation of other business gain.

While the terms “profession” and “professional” are used in common parlance to cover a variety of roles, the description relates to a narrower, more precise application and, in this regard, professional foresters are distinguished from technologists, technicians and tradespersons.

Professions, and the practice of professional forestry, have the following characteristics:

- Skill and theoretical knowledge: Registered professional foresters are assumed to have extensive theoretical knowledge and to possess skills based on that knowledge that they are able to apply in practice;
- Professional association: Professions usually have professional bodies organized by their members under provincial statute or ministerial letter that are intended to oversee the activities of individual members and enhance the status of the profession and its collective membership, and have carefully controlled entrance requirements;
- Extensive period of education: The most prestigious professions usually require several years at university. CFAB-accredited programs in Canada are at least four years in duration. This process requires a four-year undergraduate degree, or equivalent;
- Testing of competence: Before being admitted to membership in a professional body, there may be a requirement to pass prescribed, knowledge-based examinations;
- Institutional training: In addition to examinations, where they occur, there may be a requirement for a period of institutionalized training where aspiring professionals acquire specified practical experience in some sort of trainee role before being recognized as a full member of a professional body (e.g., an **articling period** in some provinces). Continuous upgrading of skills through professional development may also be mandatory
- Register: Professional regulatory bodies are typically required by law to establish registers for regulated and non-regulated membership. Only those individuals entitled to use protected titles and/or are licensed to practice the profession are recognized and may practice;
- Work autonomy: Professionals retain control over their work, even when they are employed outside the profession in commercial or public organizations and are expected to practice according to the relevant standards regardless of direction from others;
- Code of professional conduct or ethics: Professional bodies usually have codes of conduct or ethics for their members as well as dispute resolution mechanisms and disciplinary procedures for those who breach the body's code;
- Self-regulation: In Canada, professions are often self-regulating, usually operating independently through legislated authority granted by provincial parliament;
- Exclusion, monopoly, and legal recognition: Most provinces have legislation that defines the practice of each profession and provides right-to-title and/or right-to-practice.

Professional forestry in Canada is well established, as evidenced by the various organizations, associations, colleges, and regulatory bodies that control and/or assist foresters and other resource professionals who work in the forest. The Canadian Forests Website provides listings of many of the professional resource-related regulatory bodies and

associations in Canada, including forestry, and is available at www.canadian-forests.com/prof-assoc.htm. <http://www.cic.gc.ca/english/immigrate/skilled/index.asp> is a website that provides information and resources for professionals who plan to immigrate to Canada.

Management of resources is a provincial (state-level) responsibility in Canada and thus potential practitioners must be aware of the legislation in the province(s) in which they intend to practice. In most provinces in Canada, the practice of professional forestry is protected by right-to-title and/or right-to-practice legislation. (Right-to-title legislation protects the public by limiting those who may call themselves Registered Professional Forester (or other restricted titles). Right-to-practice legislation defines the practice of the profession and limits such practice to qualified professionals.) In both cases, the persons using the title or engaging in the practice come under the authority of the regulatory body, will be required to comply with specified procedures, and are subject to disciplinary procedure if warranted.

Because of the variety of species, ecosystems, human activities, and values involved in, or affected by, professional forestry, it is a very complex field of practice. This is reflected in law. Unlike legislation relevant to other professions, legislation concerning forests, forest land use, forest products, and forest management varies by province. Federal legislation also exists for some areas, e.g., federal lands, and for some forest values including water, fisheries, some species of wildlife, First Nations, heritage/archaeological resources, and others. This makes forestry and forest management even more complex and makes it vital for applicants and professionals to understand their potential roles and responsibilities when practicing professional forestry.

No matter what a professional forester's area of expertise, all professional foresters must have at least minimum levels of competency and abilities in a variety of areas, as demonstrated by the Competency Standards that form the basis of the assessment process described in this Handbook. In most Canadian jurisdictions, forestry planning is a multi-party process. Some of the important competencies a professional forester requires include incorporating stakeholder input into plans and prescriptions, evaluating options over multiple planning horizons, working with uncertainty, and managing a constantly changing suite of landowner objectives and values.

Although challenging, professional forestry is a rewarding career. Canadian professional foresters and forestry in Canada will benefit from practitioners that bring diverse and varied competencies from other educational backgrounds and welcome their participation. Back

Appendix 3: Example Applicant Profiles and Biographies

The following typical biographies are provided as examples:

Internationally trained forester who wishes to live and practice forestry in Canada Graduated from a university forestry program outside of Canada.

- May have become registered as a professional forester in home country.
- Established a practice in home country, or in several countries.
- Wishes to immigrate to Canada and practice professional forestry.
-

Allied-science professional who wishes to become a registered professional forester Graduated from university with a 4-year, science-based degree in a discipline related to forestry (e.g., geographic information systems, wildlife biology, hydrology, engineering, agrology, ecology).

- May or may not hold graduate level degree(s) in forestry.
- May or may not be a registered professional in the natural resource field (e.g., Professional Agrologist, Registered Professional Biologist, Professional Engineer, Professional Geoscientist).
- Currently practices aspects of professional forestry or wishes to practice professional forestry.

Non-accredited university forestry program graduate who wishes to become a registered professional forester Graduated from a 4-year, science-based forestry program that is not currently accredited by the CFAB.

- Currently practices aspects of professional forestry or wishes to practice professional forestry.

Graduate from a 3-year science degree program with a masters in forestry Graduated from a 3-year, science based degree in a discipline related to forestry (i.e., geographic information systems, wildlife biology, hydrology, engineering, agrology, ecology, or other)

- Completed a Master's degree in forestry
- Currently practices aspects of professional forestry or wishes to practice professional forestry.

Graduate from a technical program with additional courses at post-secondary institution(s) Considerable, diverse, and advanced forestry experience that supplements formal learning.

Other applicants with sufficient forestry-related education and experience to meet the requirements of the certification process but who do not fit in the above-mentioned categories are still encouraged to discuss their qualifications and interest with their regulatory body.

Appendix 4: Bloom's Taxonomy

Bloom identified verbs that could be used for each of the categories of learning outcomes:

For Knowledge

arrange	order	define	recognise	duplicate
label	recall	list	repeat	memorise
name	state	relate	reproduce	

For Comprehension

classify	locate	describe	identify	discuss
report	explain	restate	express	review
translate	select	indicate		

For Application

apply	operate	choose	practice	demonstrate
schedule	dramatise	sketch	employ	solve
illustrate	use	interpret	write	

For Analysis

analyse	differentiate	appraise	discriminate	calculate
distinguish	categorise	examine	compare	experiment
contrast	question	criticise	test	

For Synthesis

arrange	formulate	assemble	manage	collect
organise	compose	plan	construct	prepare
create	propose	design	write	

For Evaluation

appraise	judge	argue	predict	assess
rate	attach	score	choose	select
compare	support	estimate	evaluate	

Appendix 5: Sample Applicant Declaration

This declaration provides an opportunity for you to write a personal message about why you should be considered. In it you will: Advocate for your education, training, and experience. Attest to your ethics and professionalism. Provide an overview of the value to forestry of your own competencies.

Please pay careful attention to writing form, style, grammar, and punctuation. Although the content and composition must be your own, you may ask for assistance from colleges, witnesses, sponsors, or employers in proof-reading and editing this declaration. Your **Applicant Declaration** will provide assessors and the regulatory body with an overview of your professional competence. [Back](#)

The declaration must be no more than two pages long, single spaced. It must be signed and contain the following sentence above the signature:

"I understand that making false or misleading statements in this application may be considered professional misconduct. Such statements may result in expulsion from the assessment process, loss of assessment fee and, if discovered later, disciplinary action by the regulatory body up to and including removal from the professional regulatory body."

Sample Declaration:

Salutation to Regulatory Body

Education:

My educational background demonstrates a thorough grounding in the natural sciences through my university baccalaureate degree in Environmental Studies. Further, I supplemented my Bachelor of Science degree with correspondence and other courses available from various institutions across Canada. This education has given me broad exposure to forestry and forest science.

Experience:

I completed my undergraduate degree right after high school. After university, I began my career in the environmental field and worked for many years in all areas of environmental assessments, monitoring, inventories, and management. My curriculum vitae (CV) demonstrates that I have held positions throughout my experience that demanded leadership and supervision, and required me to make professional judgement. Over the last several years, I have worked at higher and higher levels within my company where I carried more professional responsibilities and acted as a mentor to junior employees. I was also responsible for training new staff and conducting professional development reviews. These experiences demonstrate my abilities to work at levels beyond the entry level practitioner.

Continued Competency & Professionalism:

Throughout my career, I have taken advantage of any training opportunities that have been available. I have diversified my skill set into the practice of forestry by taking additional courses and working under the supervision of colleagues who are registered professional foresters. As part of my career development goals, I have always identified gaining more experience and education in forestry as a top priority. My employer responded by giving me the opportunity to attend training, become involved in any forestry related projects, and then lead those projects (under their supervision) for which I possess the requisite competencies and knowledge. During these projects, I have developed a better understanding of the complexity of forestry and have sought guidance and clarification from my supervisor whenever I was in a position that I was not qualified to handle on my own.

I am now more eager than ever before to focus my career in forestry. My environmental background will assist me in the

context of professional forestry but I feel this is not enough. I would like to become fully registered under this process and gain the necessary experience to complete my registration with the provincial regulatory body.

I believe that my education and experience demonstrate that I possess the competencies required under this assessment process. In addition, my commitment to lifelong learning, as articulated in my professional development diary, demonstrates my maturity and dedication to pursuing forestry as a chosen career.

I believe that I have much to contribute to the practice of professional forestry. While I still have much to learn, I commit to continuing my record as a lifelong learner and dedicating myself to the practice of forestry. My CV demonstrates my past record in the environmental field and I have every intention of continuing with this work ethic and personal commitment to excellence in my forestry career.

I trust that you will find my application portfolio complete. Should you have any further questions about me or my education or experience, I would be more than happy to discuss these with you. Please call or email me at any time.

Thank you for taking the time to assess my credentials under this process. I look forward to working with you all as a registered professional forester.

I understand that making false or misleading statements in this application may be considered professional misconduct. Such statements may result in expulsion from the assessment process, loss of assessment fee and, if discovered later, disciplinary action by the regulatory body up to and including removal from the professional regulatory body.

Sincerely,

Name _____ Signature _____

Date: _____

Appendix 6: Sample CV

1 R.P. Forester
2 343 Aspen Street
3 Boise, Idaho, 83701, USA
4 Ph: (208) 456-789
5 Email: rpforest@rpfmail.com

6 EDUCATION:

7
8
9 2007 Bachelor of Natural Resource Science Degree
10 University of Vermont,
11 Burlington, VT
12

13 2002 High School Diploma
14 Belfry High School
15 Belfry, MT
16

17 MEMBERSHIPS:

18 Member, Ducks Unlimited
19 University of Vermont Alumni Association
20 Montana Rod and Gun Club

21 EMPLOYMENT HISTORY:

22 2002 – present

23 Project Manager – Crew Supervisor
24 Topdown Resource Management, Richmond, Vermont.
25

26 Office Duties:

- 27 • Project Supervision
- 28 • Company representation with clients, ranchers and stakeholders
- 29 • Client Representation
 - 30 1. Have with various clients such as Ducks Unlimited,
 - 33 2. Client Representation in meetings with community groups
 - 34 3. Client Representation in meetings with state officials
 - 35 4. Client Representation in meetings with interest groups and
 - 36 stakeholders
- 37 • State Safety Council Supervision – reporting, documentation and
- 38 investigation
- 39 • Development of specialized forest cover mapping to improve
- 40 efficiency of field reconnaissance and block layout
- 41 • Review Cruise Compilations
- 42 • Review and submit Cruise Plan Maps
- 43 • Review advertised Timber Sales Licenses and help formulate bids
- 44 • Professional Report Writing and Submissions
 - 45 1. Site Plans
 - 46 2. Professional Salvage Applications
 - 47 3. Road Reports
 - 48 4. Field Reconnaissance Reports
 - 49 5. Community Referrals
 - 50 6. Stakeholder Referrals
 - 51 7. Visual Impact Assessments
- 52 • Forest Health Management and Prescriptions
- 53

54	Field Duties:
55	• Supervision and organization of layout crews in remote camp
56	locations
57	• State Safety Council Tailgate Meetings and safety supervision
58	• Client and state officials field meetings and block reviews
59	• Timber and stand evaluation – Quality, Health and Operability
60	• SP data collection
61	• Appraisal data collection
62	• Walk Timber Sale Licenses with clients to help formulate bids
63	• Ground base block development – layout, supervision and quality
64	control, specifically:
65	1. Over 200 million board feet developed and approved since 2007
66	2. Pine beetle salvage block layout
67	3. Trap Tree layout for Fir and Spruce Beetle
68	4. Burnt timber layout
69	5. Windthrown timber layout
70	6. Green timber layout
71	7. Layout of Partial Harvest mark-to-cut Silviculture Systems
72	8. Layout blocks to meet Visual Quality Objectives
73	• Engineering Cable Logging Systems – layout, supervision and
74	quality control
75	1. 300 million board feet developed and approved since 2006
76	2. Blocks designed for a variety of cable systems
77	3. Specific timber grade, species and volume target
78	4. Challenging road and trail layout
79	• Engineering Helicopter Logging Systems – Layout Assistant
80	1. 120 million board feet developed during 2004/2005.
81	2. Specific timber grade, species and quality guidelines
82	3. Challenging and dangerous coastal terrain
83	• Logging Supervision
84	1. Supervise and assist hand fallers construct helicopter pads.
85	2. Supervise and assist hand fallers falling trap trees.
86	3. Pre-work and supervise equipment operation (bunching,
87	skidding, processing and hauling).
88	• Internal Quality Control
89	1. Review blocks to insure they meet the client's criteria.
90	2. Assess slopes in blocks
91	3. Insure timber is not being isolated by block design
92	4. Review riparian area treatment
93	• Archaeological Field Review
94	1. Review block layout with First Nation representatives.
95	2. Develop management prescriptions to address concerns.
96	• Silviculture Surveys – Regeneration and Free-to-Grow
97	1. Sampling grid design
98	2. Statistical review to insure proper tree counts are attained
99	• Bark Beetle Treatments
100	1. Placing anti-aggregate bait pouches in sensitive sites
101	2. Setting up and monitoring Lindgren Funnel Traps
102	3. Placement of attractant baits using a grid system
103	4. Placement of attractant baits using a random system
104	• Timber Cruising – Chainman
105	1. Using a compass and tightchain to locate plot centers
106	2. Measure tree attributes
107	3. Locate and mark tree defect
108	

109
 110 May 2001-Sept 2001
 111 Wildlife Technologist
 112 Big Buck Wildlife Research Ltd. Winslow Arizona
 113
 114 • Conduct Wildlife Habitat Surveys
 115 • Ground Truth Newly Developed habitat maps
 116 • Vegetation Identification
 117 • Research endangered species accounts
 118
 119 June 1999 – May 2001
 120 Lumber Grader
 121 D&D Wood Products, Seattle, Washington
 122
 123 • Grade lumber according to national specifications
 124 • Assess and determine the best product that can be made from a low
 125 grade product (value-adding)
 126 • Worked in a fast paced, closely supervised environment
 127
 128 CERTIFICATES:
 129
 130 • Occupational First Aid Level 1 (2010)
 131 • Supervisor Safety Management Accident Investigations (2009)
 132 • S-100A, Basic Fire Suppression and Safety (2004)
 133 • Bear Awareness Training
 134 • CORE Hunter Training
 135 • PAL Possession and Acquisition License
 136 • NFPA Lumber Grading Ticket
 137 • Wildlife Habitat Rating Course
 138
 139 INTERESTS:
 140
 141 Hunting, duck hunting, rock climbing, chain saw art
 142
 143 REFERENCES:
 144
 145 Duff Waters – Senior Project Manager, Alpine Information Management
 146 101-1383 Seattle Washington, 98101 (206) 372-0857
 147
 148 Pete Boggs – Area Manager, High Tide Fibre Ltd
 149 201-705 Sphagnum Lane, Winslow Arizona 86047 (928) 372-7055
 150
 151 Buck Yarder – Forester, Big Butt Group Ltd.
 152 17897 Barberchair Road Richmond Vermont, 23173 (804) 587-8700
 153
 154 Gail Windthrow – Small Scale Salvage Technician USFS
 155 District 1265 Hundred Mile Woods, Montana, 41514 (606) 371-6553
 156
 157 John E. Appleseed – Principle, Hand Sown Regeneration Inc.
 158 1425 Appalachia Blvd, Leominster, Massachusetts, 014531J3 (978) 828-7977
 159
 160 Paul Bunions – Owner Operator, Blue Ox Logging
 161 1776 Boone Way, Oscoda Michigan, 48750 (313) 567-3134
 162

Appendix 7: File Naming Protocol

Purpose

The purpose of this document is to summarize the file naming protocol that applicants will use when submitting their portfolios. Consistent file naming is important because all documents are stored in a database.

General File Naming Protocol

The general protocol is as follows:

[APPLICANT NAME] + [DOCUMENT NAME] + [DATE].[SUFFIX]

To explain each of the these parts::

[APPLICANT NAME] is the last name and first initial only

[DOCUMENT NAME] is as indicated in the tables below

[DATE] is month year (March 2012) and refers to the date of submission

[SUFFIX] is the file type, either .doc, .docx, .xls, .xlsx, .pdf

Example: smithp application form March 2012.pdf. Note spaces between the words.

Specific Document Naming Protocol

Regulatory bodies will ensure that documents are received in the following format with the specified naming protocol and then provide these digital files to assessment panels in the following order. PDF files should be bookmarked and zipped.

Number	Requirement	File Name
1	Applicant Declaration	[APPLICANT NAME] declaration [DATE].pdf
2	CV documenting relevant work history, with numbered lines	[APPLICANT NAME] cv [DATE].pdf
3	Transcript submitted directly to the Registrar by the issuing institution(s), in hard copy, verifying the 4-year science-based degree or equivalent	[APPLICANT NAME] transcript [DATE].pdf
4	A translation of the transcript, from certified translator, if applicable.	[APPLICANT NAME] transcript translation [DATE].pdf
6	Third party degree credential authenticity and equivalency check to Canadian university standards, if applicable	[APPLICANT NAME] transcript credentials [DATE].pdf
5	Course outline, provided by the education institution, with sufficient detail to support demonstrable competencies noted in the applicant's Self Assessment Matrix.	[APPLICANT NAME] course outlines [DATE].doc

continued on next page

Number	Requirement	File Name
6	A translation of course outline, from certified translator, if applicable	[APPLICANT NAME] course outlines translation [DATE].pdf
7	Authentic and citation-appropriate, original resources from the issuing institution (e.g., academic calendars, course syllabus)	[APPLICANT NAME] course syllabus [DATE].pdf
8	A translation, from certified translator, if applicable	[APPLICANT NAME] course syllabus translation [DATE].pdf
9	Three character witnesses forms submitted directly to Registrar by the witnesses	[APPLICANT NAME] character witness form [WITNESS NAME] [DATE].pdf
10	Competency Witnesses forms submitted directly to Registrar by the witnesses	[APPLICANT NAME] competency witness form [WITNESS NAME] [DATE].pdf
11	Specific performance indicators in the Self Assessment Matrix are validated with experience-based evidence (i.e., not education-based with proof by transcript, course outline, or other) have been signed off by one or more witnesses	Witness initials inserted in MS excel self-evaluation spreadsheet
12	Forms have been translated, if applicable	[APPLICANT NAME] character witness form translation [WITNESS NAME] [DATE].pdf [APPLICANT NAME] competency witness form translation [WITNESS NAME] [DATE].pdf
13	Self Assessment Matrix fully completed and with witness sign-off	[APPLICANT NAME] self assessment [DATE].xls
14	Supporting documents such as published papers and management plans	[APPLICANT NAME] [DOCUMENT NAME] [DATE].pdf



Appendix 8: Sample Course Outlines

The following course outlines are intended to demonstrate what is and what is not acceptable. The first two examples provide detailed information on each course such as specific content, the type of evaluation, prerequisites and related information. This level of detail allows the assessment panel to understand the degree to which courses meet the requirements of the standards. The first example is from a non-accredited Canadian university and the second example is from a German university and has been translated. The third example provides only a few sentences of description for each course which does not provide enough information for evaluation. This example comes from an American university.

Example 1: Canadian Non-Accredited University

This is a very good example of what is required for a course outline.

UNIVERSITY COLLEGE OF THE CARIBOO

Division of Sciences and Health Sciences

Department of Forestry and Natural Resource Science

INTRODUCTION TO FORESTRY - FRST 100

Winter 1999

Instructor: Alan Vyse

Office: S142

Phone: 371-5570

Course Description:

The course will provide an overview of Forestry in B.C. Forest conditions and forestry in BC will be compared to other parts of Canada and the world. Major forestry issues will be discussed from a variety of viewpoints. Students will be encouraged to share their views and to work together to explore various aspects of B.C. Forest Policy. At the end of the course students will have a better understanding of the problems of managing forests in the face of many competing and conflicting demands for the products and the many services provided by the forest in B.C., the evolving role of the "B.C. forest manager" in mediating those demands using a variety of tools (legislation, planning, research), and opportunities for personal involvement in forest management, whether as a future professional or an interested citizen.

Required text:

Hamish Kimmins "Balancing Act: environmental issues in forestry" Vancouver, UBC Press, 2nd ed. 1996. I chose this text because it presents information on forestry and forestry issues in a readable yet comprehensive manner. The presentation is balanced, and in my view realistic, but others disagree, principally those who view the use of forests from a spiritual viewpoint and regard the natural forest as the ideal.

Other books with much pertinent material include:

Chris Tollefson 1998. The Wealth of Forests: Markets, Regulation and Sustainable Forestry UBC Press. This book contains a series of essays on B.C Forest policy. I'll discuss the book when I get a copy!

Elizabeth May 1998 At the cutting edge: the crisis in Canada's forests. Key Porter Books. This book is a summary of environmentalists views about forest management in each of the Canadian Provinces. It is poorly written but will achieve fame for suggesting that Canadian Forests are going the way of the Atlantic cod fishery.

Ben Parfitt 1998 Forest Follies: Adventures and misadventures in the Great Canadian Forest. Harbour publishing. Parfitt's book has a more balanced view of forest management than May's while still retaining a strong green emphasis. It is also more

readable. His style is more personable and less rhetorical and he makes his points through telling a story. Much of his emphasis is on B.C.

Other B.C oriented books on Forest Policy include:

Ken Drushka, Bob Nixon, and Ray Travers editors 1993 Touch Wood: BC Forests at the Crossroads. Harbour Publishing. \$16.95. A book of essays on B.C Forestry; the essays are mostly opinion pieces and deal with political issues, rather than forest science, in contrast to Kimmins.

Michael M'Gonigle and Ben Parfitt 1994 Forestopia: a practical guide to the new forest economy. Harbour Publishing. \$16.95. This is easier to read than the above book, but doesn't contain as much detailed opinion.

Herb Hammond 1991 Seeing the forest among the trees: the case for wholistic forest use. Polestar Press. \$46.95. A more complex book than either of the two above, a more personal spiritual and ethical viewpoint for a much higher price, but nice pictures.

Province of B.C 1994. The 1994 Forest Range and Recreation Resource Analysis. Ministry of Forests Victoria. An survey of forestry and the forest resource in B.C. ... a photocopy of extracts on forest policy will be made available

Forest policy information with a Canadian focus can easily be obtained, free, by requesting copies of:

Government of Canada 1997. The state of Canada's forests: learning from History. Seventh report to Parliament. Canadian Forest Service Ottawa. A good source of information on Canada's forests and their use.

Government of Canada 1998 The State of Canada's forests: the peoples forests. 8th Report to Parliament, Canadian Forest Service, Ottawa.

If you are interested in the history of forest use, I recommend reading

John Perlin 1989 A forest journey: The role of wood in the development of civilization. Harvard University Press. An excellent historical tale of the role of forests and forestry in civilizations through the ages.

For all kinds of information on forests and forest policy see WEB Pages:

www.canadian-forests.com; www.for.gov.bc.ca; www.cif-ifc.org; www.bcen.bc.ca;
www.rpf-bc.org
www.pfc.cfs.nrcan.gc.ca

Course Evaluation:

1). Final exam.....	50%
2). 3 short Essays.....	15%
3). Forest management computer game.....	5%
4). Project (including essay and presentation).....	30%

Course Content:

Jan. 7th	Issues in the management of B.C.'s forests
Jan. 14th	B.C.'s Forests and the world
Jan. 21st	How <i>do</i> we manage our forests in B.C.?
Jan. 28th	The management structure: laws, policies, tenures, and practices
Feb. 4th	Forest Practices Code: what is in it? Is it working? Is Certification an alternative?
Feb. 11th	The clearcutting debate with an emphasis on alternatives
Feb. 18th	SPRING BREAK
Feb. 25th	Timber supply: what is it? how is it calculated? what affects it?
Mar. 4th	Local communities; effects of timber supply reductions
Mar. 11th	Forest Renewal BC; what is it; what will it do; Planning for future forest use
Mar. 18th	Treaty negotiations with First nations and their effect on forestry
Mar. 25th	Sustainable forestry in B.C.: is it possible?
April 1st	Group presentations
April 8th	Group presentations; plus course REVIEW
April 15th	Exam (tentative)

Example 2: German University with English Translation

This is the bare minimum of what is required for a course outline.

Modul (Wahlpflicht)	ECOPEDOLOGY OF THE TROPICS AND SUBTROPICS
Art/Umfang/Doz.	V / 6 Credits, K=56, S=124 / Veldkamp
Vorbedingungen	none
Inhaltl. Beschr.	<p>Part I: General introduction in soils of the tropics and subtropics, their functions, genesis, geography and properties. Objective: general understanding of the most important aspects of tropical soils, their occurrence, genesis, properties and use. The following topics will be discussed: Introduction; Climate, water and vegetation; Weathering and weathering products, clay minerals; Soil organic matter, C and N dynamic; Soil chemical reactions, variable charge; Soil forming processes and development of soils; Water and nutrient cycling of land use systems; Tropical shield areas (example: Amazon basin); Arid shields and platforms (example: West Africa); Tropical mountain areas (example: Andes); Fluvial and coastal areas in the tropics (example: coastal areas in Asia).</p> <p>Part II: Introduction in the description and classification of soils, using in international system (FAO). Objective: understanding the principles of the FAO soil profile description and classification. The course consists of introductory lectures in which the principles of the FAO soil description and classification will be explained. This knowledge will be practiced using examples of soil profiles from different tropical countries. The second part consists of a practical week during which soil profile descriptions and evaluations will be exercised in the field. We will visit three contrasting sites around Göttingen where a site and soil description will be made. The work will be done in small groups. Students discuss their results in a report.</p>
Prüfung	Term paper and written exam (2 hours)
Lernziele, Qualifikationen	General understanding of the most important aspects of tropical and subtropical soils, their occurrence, genesis, geography, properties and use. Understanding the principles of the international FAO soil profile description and classification.
Verwendbarkeit	

Modul (Wahlpflicht)	PROJECT PLANNING, MANAGEMENT AND EVALUATION
Art/Umfang/Doz.	V/Ü / 6 Credits, K=56, S=124 / Möhring (Koord.), Olschewski, v. Stieglitz
Vorbedingungen	none
Inhaltl. Beschr.	<p>This module provides managerial and planning methods for forestry projects and gives insight into practical examples of development co-operation. The economic evaluation of forestry projects includes private goods like timber as well as public goods like recreation and protection services to allow for decision making on a broad information basis. The students learn how to use the methods and instruments and recognise advantages and limitations of the different evaluation techniques. A deeper understanding of the subject-matter is achieved by exercises. In the last years the subjects of this module formed the basis for a cost-benefit analysis, conducted by the students during the following project semester.</p>
Prüfung	Written exam (2 hours)
Lernziele, Qualifikationen	<p>This module provides managerial and planning methods for forestry projects and gives insight into practical examples of development co-operation. The economic evaluation of forestry projects includes private goods such as timber as well as public goods such as recreation and protection services to allow for decision making on a broad information basis. The students learn how to use the methods and instruments and recognise advantages and limitations of the different evaluation techniques.</p>
Verwendbarkeit	

Modul	FOREST UTILIZATION AND WOOD PROCESSING
-------	---

(Wahlpflicht)	
Art/Umfang/Doz.	V / 6 Credits, K=56, S=124 / Kürsten (Koord.), Höfle
Vorbedingungen	none
Inhaltl. Beschr.	<p>The modul consists of two parts: Work Systems and Methods in Forest Utilization. It puts forest operations into the broader context of society and forest ecosystems and stresses the human factor involved. Emphasis is directed to systems analysis and long-term perspectives.</p> <p>Contents: Overview of the role of forestry, forest products, forest areas, removals and general tendencies as basic information. The importance of the human factor: indigenous knowledge, training, ergonomics, occupational safety and health, work studies. Basic elements of road planning, construction and maintenance. Fuelwood, simple methods for charcoal production. Harvesting technologies: overview, reduced impact logging, case studies. Technologies outside harvesting. Appropriate technologies. Cost control in forest operations. Recent developments (information technology, GIS, logistics).</p>
Prüfung	2 written exams (à 1 hour)
Lernziele, Qualifikationen	<p>Knowledge of technological relevant wood properties of important commercial timbers. Technology of major forest products in tropics (lumber, veneer, plywood, wood-based panels, pulp and paper) and their significance for forest utilisation.</p> <p>Enables students to analyse situations where forest operations take place and to select and quantify the optimal course of action. It puts forest operations into the broader context of society and forest ecosystems and stresses the human factor involved. Emphasis is directed to systems analysis and long-term perspectives</p>
Verwendbarkeit	

Modul (Wahlpflicht)	INTERNATIONAL FOREST ECONOMICS
Art/Umfang/Doz.	V/Ü / 6 Credits, K=56, S=124 / Olschewski (Koord.), N.N.
Vorbedingungen	keine
Inhaltl. Beschr.	<p>The module "International Forest Economics" is divided in two parts: "International Markets, International Resources and Forest Protection" (Olschewski) and "Forest Development Economics" (N.N.). "International Markets, International Resources and Forest Protection": The lecture is split in two main areas: 'International Wood Markets' and 'International Environmental and Forest Conservation'. The first part deals with the international trade with wood and wood products. International markets and the consequences of protectionism are analysed. Furthermore, aspects of international wood marketing are shown. In the second part, international environmental problems are described and possibilities as well as constraints for international co-operation are discussed. Finally, relations between environmental conservation and economic development are analysed.</p> <p>"Forest Development Economics": Indicators for the measurement of economic development are presented and obstacles for the development process are discussed. Approaches for forest development policy are shown and their impact on foreign trade is analysed. Furthermore, the promotion of sustainable forest-land use in the informal sector and aspects of forest development planning are discussed.</p>
Prüfung	Written exam (2 hours)
Lernziele, Qualifikationen	The students are enabled to analyse different problems in the field of international forest economics and to show solutions for such problems based on economic theory. Knowledge of market as well as foreign-trade theory is acquired and environmental and development economic instruments are applied.
Verwendbarkeit	

Example 3: American University

This does not meet what is required for a course outline.

220--School of Forestry--Forestry

Graduate Programs

The School of Forestry offers these graduate degrees: Master of Science in Resource Conservation, Master of Science in Forestry, Master of Forestry, Master of Science in Wildlife Biology, Master of Science in Recreation Management, and Doctor of Philosophy.

For further information on these programs contact the Graduate School.

Courses

U = for undergraduate credit only, UC = for undergraduate or graduate credit, G = for graduate credit. R after the credit indicates the course may be repeated for credit to the maximum indicated after the R.

- U 130N **Introduction to Ecology and Environmental Management** 3 cr. Consideration of ecological principles underlying the use and conservation of natural resources, and the societal constraints on their management. Group-project oriented and on-site observation.
- U 140 **Introduction to Urban Forestry** 2 cr. An Introduction to urban forestry principles and practices. Benefits of the urban forest. Topics covered include plant species selection, site design, site assessment, planting, watering, fertilization, insects and diseases, pruning and tree care, inventory of property values, and community forestry development.
- U 180 **Careers in Natural Resources** 2 cr. Same as WBio 180 and Recm 180. Subject matter and fields of study within natural resources management. Topics include forestry, wildlife biology, range, water, recreation management, forest products production, and other opportunities for careers in natural resources.
- U 195 **Special Topics** Variable cr. (R-6) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.
- U 196 **Independent Study** Variable cr. (R-3) Prereq., consent of instr. Problems course designed to allow individual research at the undergraduate level.
- U 200 **Introductory Forest Biometrics** 2 cr. Prereq., Math 121 or 150. Introduction to statistical procedures applied to biological populations. Includes use of number scale, descriptive statistics and introduction to hypothesis testing ("Z", "t" and "F" tests). Lectures are reinforced with lab exercises including an introduction to the use of computers to solve statistical problems.
- U 201 **Advanced Forest Biometrics** 3 cr. Prereq., For 200. Applying statistics, hypothesis-testing and computer programming to biological problems.
- U 210N **Introductory Soils** 3 cr. Prereq., Chem 151N. An introduction to the chemical, physical, biological and morphological properties of soils.
- U 220 **Technical Writing** 3 cr. Stresses principles of effective technical writing, primarily clarity and conciseness. Short writing assignments are criticized for grammar, sentence structure, organization and work economy. Emphasizes self-editing as a means of improving writing and discusses problems of literature citation.
- U 230 **Forest Fire Management** 2 cr. Presuppression and suppression of fire and the uses of fire in management practices. Fire weather, the measurement of fire weather, the factors that influence fire behavior, and fire management decisions. Class meets for half semester.
- U 232 **Forest Insects and Diseases** 2 cr. Identification, significance of and remedies for insect infestations and infectious and non-infectious diseases of forests and forest products. Class meets for half semester.
- U 240N **Tree Biology** 3 cr. Suggested coreq., For 241N. The physical and biological requirements for the growth and development of trees. Discussions of: identification, classification, range, and economic importance of the major tree species of North America.
- U 241N **Tree Identification Laboratory** 2 cr. Prereq., Biol 120N; suggested coreq., For 240N. Methods and techniques for identifying the major families of North American trees, based on gross morphological and anatomical features. Building and use of identification keys.
- U 245 **Introduction to Timber Management** 3 cr. A survey of the concepts basic to timber management. Areas covered are silvics, mensuration, silviculture and yield regulation.
- U 250 **Plane Surveying in Resource Data Systems** 3 cr. Prereq., Math 121. Principles, field techniques and applications of plane surveying.
- U 270N **Conservation of Wilderness, Wild Rivers and National Parks** 3 cr. Same as Evst 270N and Recm 270N. Examination of the historical, philosophical and legislative background for development and management of our national system of wilderness areas, wild and scenic rivers, trails, and national parks; their place in our social structure.
- U 271 **Wilderness Ecology** 3 cr. Prereq., For 130N or Evst 101N. A study of forestry and wildlife issues which affect the maintenance of wilderness integrity. Topics include: global climate changes; management of wildfires, cattle grazing and noxious weeds; game management; threatened and endangered species, including grizzly bears, wolves, bird and fish species.
- U 272 **Wilderness and Civilization** 3 cr. (R-6) Core course in the Wilderness and Civilization Program. Includes field instruction in wilderness resources and orienteering, participation in wilderness issues, and study and discussion of wilderness in Montana and in society as a whole.
- U 280S **Perspectives in Environmental Management** 3 cr. Offered alternate years. Study of how western people and people of other cultures have managed forest lands and other wildlands, both past and present. Includes discussion of philosophies of natural resource use, and legal, social, economic, political and ecological constraints on resource policy.



- U 295 Special Topics** Variable cr. (R-6) Experimental offerings of visiting professors; new courses or one-time offerings of current topics.
- U 296 Independent Study** Variable cr. (R-3) Prereq., consent of instr. Individual research at the undergraduate level.
- UG 300 Forest Mensuration** 4 cr. Prereq., For 201. The theory and practice of timber inventory and growth projection, including sampling procedures, statistical methods, field procedures, and use of microcomputers to compile inventories and simulate stand growth under specified management prescriptions.
- UG 304 Conservation of Natural and Human Resources in Montana** 3 cr. Prereq., consent of instr. Same as EVST 304. Conservation in Montana; environmental problems such as air pollution, water pollution, mining impacts and resource management of wildlands, timberlands, and wildlife.
- UG 307 Computer Modeling in the Natural Sciences** 3 cr. (R-6) The construction and analysis of computer models or simulations of processes, systems and populations in the natural sciences. A project-oriented course.
- U 310 Soil Physics** 3 cr. Prereq., For 210. The physical and mechanical properties of soils with special emphasis on the role of water in influencing those properties. A lab will accompany the course.
- UG 320 Forest Economics** 3 cr. Prereq., Math 150; Econ 111S. Economic analysis involved in the use and distribution of forest resources.
- UG 330 Forest Ecology** 3 cr. Prereq., Biol 120N or Biol 103N, 104N; prereq., or coreq., For 210N. Examination of the processes and variation of forests with field labs at Lubrecht in the months of April and May; interpretive ecology and development of skills in observation, taxonomy, measurement, data interpretation and problem solving.
- UG 331 Wildland Fuel Management** 3 cr. Prereq., For 230 or equiv. Fire ecology, western vegetation types; planning for prescribed use of fire; fuel management objectives and techniques; mechanical, chemical, prescribed fire; smoke management considerations.
- UG 332 Forest Entomology** 3 cr. Prereq., For 232. Classification, identification, life cycles, and control of insects which injure forests and forest products.
- UG 340 Timber Harvesting and Forest Products Manufacturing** 5 cr. Prereq., junior standing or consent of instr. Survey of ground, cable and aerial timber harvesting techniques and the subsequent manufacture of wood-based products from this harvest. Laboratory field trips to timber harvesting operations and several local manufacturing facilities.
- UG 341 Timber Management** 3 cr. Prereq., For 320, 346. Management of timber stands, including assessment of site quality, stocking, stand condition, and other factors influencing growth; use of growth and yield projections; development of stand management prescriptions; economic evaluation of alternative management strategies; stumpage appraisal and harvest scheduling.
- UG 342 Wood Anatomy, Properties and Identification** 3 cr. Prereq., Biol 120N or For 240N, 241N. Lecture and laboratory investigation of the structure, identification and physical and mechanical properties of the commercial tree species of North America.
- UG 346 Principles of Multiple Resource Silviculture** 1 cr. Prereq., a course in ecology. Principles of silviculture to meet multiple resource objectives. Field trips will be arranged.
- UG 347 Practice of Multiple Resource Silviculture** 2 cr. Prereq., For 300, 330; coreq., For 346. The practice and application of silvicultural techniques to forest ecosystems to meet multiple resource objectives. Field trips will be arranged.
- UG 351 Photogrammetry and Remote Sensing** 3 cr. Prereq., Math 121, For 250. The theory and application of photo- and electro-optical remote sensing for mapping resources and developing information systems.
- UG 352 Advanced Surveying** 3 cr. Prereq., For 250. Introduction to precision-oriented instruments, electronic distance measurements, control surveys, satellite-based positioning, and data processing.
- UG 360 Range Management** 3 cr. Prereq., junior standing or consent of instr. An introduction to rangelands and their management, grazing influences, class of animal, grazing capacity, control of livestock distribution, improvements, competition and interrelationships with wildlife. Laboratory exercises to gain on-the-site experience on topics and concepts presented in lectures.
- U 361 Range Forage Plants** 3 cr. Prereq., For 360 and Biol 165N. Description, identification, forage value and ecology of forage plants of the western United States; important weed species, management of grazing lands, and the relationship of ecophysiology and morphology to grazing response.
- U 362 Range Livestock Production** 3 cr. Prereq., For 360 or consent of instr. Offered alternate years. An introduction to livestock production in natural systems and the role of livestock production in the world food situation; emphasizes selection, production and management principles of beef cattle systems.
- UG 372 Wildlife Administration, Enforcement and Biopolitics** 3 cr. Overview of the laws affecting wildlife and how those laws are initiated, implemented, and enforced; impact of politics, interest groups, and agency jurisdictions.
- UG 380S Environmental Conservation** 3 cr. Prereq., junior standing. The interrelationships of resource conservation problems and programs; management and conservation in the context of an expanding economy.

- UG 385 Introduction to Watershed Management 3 cr.** An introduction to physical and biological controls over water movement and storage in the environment, and how those controls are affected by land management practices. Laboratory exercises introduce basic watershed measurement and analysis techniques.
- UG 389 Integrated Resource Management of Riparian/Wetland Areas 3 cr.** Prereq., one introductory ecology course. Importance of riparian/wetland areas and the complexities associated with their management for short and long term benefits.
- U 395 Special Topics Variable cr.** (R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.
- U 398 Cooperative Education Internship Variable cr.** (R-12) Prereq., consent of department. Extended classroom experience that provides practical application of classroom learning during placements off campus. Prior approval must be obtained from the faculty supervisor and the Cooperative Education Office.
- UG 400 Sampling Methods 3 cr.** Prereq., For 201 or equiv. Offered alternate years. Definitions, sampling with and without replacement, equal and unequal probability sampling, sample size and allocation, estimates and their variances, simple random sampling, stratification, doubling sampling, two-stage sampling, PPS and 3P sampling uses and precision.
- UG 410 Soil Morphology, Genesis and Classification 3 cr.** Prereq., For 210N. The morphological characteristics of soils, how the horizons formed and an introduction to the *Soil Taxonomy* classification system used in this country. Field trips will be included.
- UG 412 Ecosystem Ecology 3 cr.** Prereq., For 210N, 310, 315. Discussions of the functioning of ecosystems with emphasis on processes, leading to understanding of landscape ecology. Emphasis on the ways humans can alter ecosystem processes and how systems that have been disturbed recover.
- UG 420 Forest Resources Finance and Valuation 3 cr.** Prereq., For 320. Theory and practice of evaluating financial and other economic impacts of forest resources management opportunities.
- UG 422 Natural Resources Policy and Administration 3 cr.** Policy formation in the United States and a survey of the major resource policies interpreted in their historical and political contexts.
- UG 423 Natural Resources Law 3 cr.** Prereq., senior standing. Offered alternate years. Survey of the structure of the American legal system with emphasis on the principles of law relevant to natural resource management.
- UG 430 Forest Regions of North America 3 cr.** Prereq., a class in ecology. Ecological development of forest regions of North America, successional patterns, limiting factors; development and application to forestry problems of selected classification systems.
- UG 431 Forest Habitat Typing and Management Implications 3 cr.** Prereq., For 330 or Biol 355. Habitat typing and ecological classification used as a forest management tool in the northern Rocky Mountains.
- UG 432 Advanced Fire Weather 4 cr.** Prereq., For 230. The study of mesoscale and synoptic meteorological influences on fire behavior, danger and climate in the northern Rocky Mountains.
- UG 433 Fire Management Planning 3 cr.** Prereq., For 331 or consent of instr. Offered alternate years. Planning analysis using case studies; consideration of fire history, weather, and fuels in wilderness fire management; smoke management and multiple resource coordination.
- UG 440 Advanced Timber Harvesting 3 cr.** Prereq., For 340. Timber harvest unit and transportation system layout, logging planning, and system organization for the application of ground-based, cable, and aerial timber harvesting systems; economic feasibility of alternative practices; achieving compatibility with environmental constraints.
- UG 442 Technical Processing of Wood Products 5 cr.** Prereq., For 340 and 342. Lecture, discussion, laboratory manufacture, and evaluation of solid and composite wood products. Exercises include lumber manufacture and drying at School's sawmill; plywood, laminated beam manufacture and strength testing; particle board and flakeboard manufacture and testing.
- UG 446 Nursery Practices and Tree Improvement 3 cr.** Prereq., For 346. The study of nursery practices and forest tree breeding methods for genetically improved forest tree seedlings and seed.
- UG 450 Advanced Aerial Photogrammetry 3 cr.** Prereq., For 351. Aerial photogrammetric methods in map construction and compilation, resource inventories and forest engineering.
- UG 451 Remote Sensing in Resource Management 3 cr.** Prereq., For 351. Imaging systems, multi-band and multi-spectral imaging, image analysis for resource information and evaluation.
- UG 452 Advanced Image Analysis 3 cr.** Prereq., For 451. Offered alternate years. Analysis of problems in the use of remote sensing media and their evaluation as sources of resource information.
- UG 460 Range Inventory and Analysis 3 cr.** Prereq., For 360 and one course in statistics. Methods of measuring range and shrub-land vegetation at individual and community level for determining plant composition, changes following treatments, and carrying capacity of range livestock and native ungulates.
- UG 461 Animal Nutrition 3 cr.** Prereq., For 360 or consent of instr. Elements of animal nutrition, physiology of ruminant nutrition, nutritional characteristics of forage plants related

- to nutrition requirements of livestock and wildlife, and nutritional strategies of free-roaming animals.
- UG 462 Range Ecology 3 cr.** Prereq., For 360 and one course in plant ecology. Applied ecology of rangeland uses by various biota, synecological response to grazing, fire, herbicides, fertilizers and mechanical treatments, structural and functional responses of grassland systems to disturbance.
- UG 463 Range Improvement 3 cr.** Prereq., For 360. Methods of improving rangelands, including grazing systems, control of weeds, controlled burning, seeding, fertilization and mechanical soil treatments.
- UG 467 Rangeland Planning 3 cr.** Prereq., For 460, 462, 463. Development of a detailed management plan for a specified land unit. Field problem in planning, inventory, analysis, allocation and management.
- UG 480 Forest and Rangeland Area Planning and Design 2 cr.** Prereq., senior standing. A multidisciplinary planning team approach to developing detailed, site-specific resource management planning for units of forest and rangeland at the area or watershed level. Includes use of geographic information systems, computer modelling, and linear programming.
- UG 481 Forest Planning 3 cr.** Prereq., For 341 or consent of instr. A multidisciplinary planning approach to integrated multiple use planning at both the management unit and forest-wide levels: defining multi-resource management goals, generating management alternatives, projecting outcomes, assessing environmental impacts, and implementing preferred options. Includes introduction to linear programming and other modeling techniques of forest planning.
- UG 483 Foundations of National Forests 3 cr.** Offered alternate years. Historical and topical seminar on the development of forest planning under the National Forest Management Act; current issues in forest planning including the appeals process.
- UG 485 Advanced Watershed Management 3 cr.** Prereq., For 385 or consent of instr. Effects of land management practices on water and sediment yields from wildland watersheds. Introduction to statistical methods in hydrology. Introduction to water yield and sediment modeling techniques.
- UG 487 Northwest Forest Resources Field Trip 3 cr.** Prereq., senior standing. One-week trip will focus on field and mill applications of silviculture, harvesting, regeneration, manufacturing, management, and watershed, wildlife and recreation practices in the Pacific Northwest.
- UG 489E Ethics and the Management of Public Lands 3 cr.** Prereq., lower-division course in Perspective 5 or consent of instr. Theoretical and practical ethical issues affecting the management of natural resources in national forests and on other public lands.
- UG 495 Special Topics Variable cr.** (R-12) Experimental offerings of visiting professors, experimental offerings of new courses, or one-time offerings of current topics.
- U 496 Independent Study 1-3 cr.** (R-10) Prereq., consent of instr. Individual study or research problems.
- U 497 Senior Thesis 3 cr.** Prereq., senior standing and consent of instr. Preparation of a major paper based on study or research in a field selected according to the needs and objectives of the student.
- UG 498 Cooperative Education Internship Variable cr.** (R-15) Prereq., consent of instr. Extended classroom experience which provides practical application of classroom learning during placements off-campus. Prior approval must be obtained from faculty advisor and Cooperative Education Office.
- G 500 Forest Growth and Yield 3 cr.** Prereq., For 300 or consent of instr. Offered alternate years. Theory and methods for projecting quantitative measures of tree and stand growth over time; includes analysis of computer growth and yield models used in the region.
- G 501 Research Methods 3 cr.** Prereq., a course in statistics or consent of instr. The nature of scientific research, planning research projects, organization and presentation of research results. Emphasis on the development of study plans for specific research projects.
- G 502 Advanced Research Methods 3 cr.** Prereq., For 501 or equiv. The use and analysis of advanced statistical procedures related to natural resources research.
- G 503 GIS: Methods and Applications I 3 cr.** Prereq., consent of instr. General principles of geographic information systems. Instruction and lab use of specific software packages used for management decision-making in natural resources management. Students have hands-on experience in digitizing, mapping, spatial analysis and data-base creation.
- G 504 GIS: Methods and Applications II 3 cr.** Prereq., For 503. Continuation of 503.
- G 511 Soil Chemistry 3 cr.** Prereq., For 210N, 330. A series of lectures on soil chemistry in the beginning of the semester, emphasizing water and nutrient movement, followed by a series of laboratory and lecture classes on soil chemistry, emphasizing data interpretation and problem solving.
- G 520 Advanced Forest Economics 3 cr.** Prereq., For 320. Economic basis for multi-product management of forest land resources and industries.
- G 523 Forest Land Resource Economics 3 cr.** Prereq., For 320. Economic analysis of forest land in terms of institutional arrangements, allocation, and production relationships.
- G 530 Forest Meteorology 3 cr.** Prereq., graduate standing or consent of instr. A brief introduction to synoptic and mesoscale meteorology, followed by more intense study of physics

Appendix 9: Database Users Guide for Applicants



The login screen features the header "CANADIAN FEDERATION OF PROFESSIONAL FORESTERS ASSOCIATION" and "Credential Assessment for Foreign-Trained Applicants and Graduates of Non-accredited Programs". It includes a "Login:" field, a "Password:" field, and a "Login" button. Logos for "BRITISH COLUMBIA" and "CANADA STARTS HERE" are at the bottom.

1. Login Screen

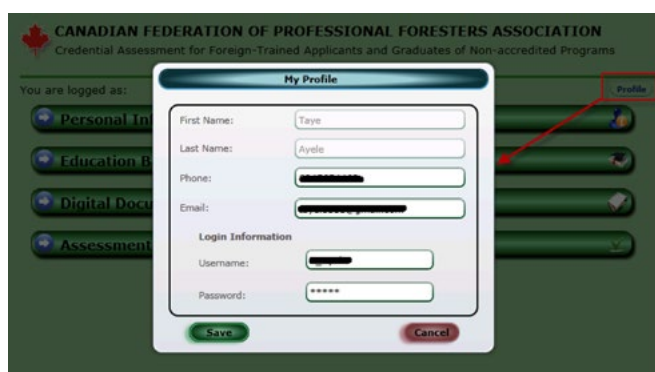
Once the registrar decides the applicant's portfolio is ready for evaluation [7], database access information will be provided. Enter this information on the login screen



The main screen shows the user logged in as "Taye Bekele Ayele" with a "Log Out" link. It features four main menu items: "Personal Information", "Education Background", "Digital Documents", and "Assessment Process", each with a corresponding icon.

2. Main Screen

This is the main screen, once applicants have accessed the database. This screen permits the applicant to access personal, education, and digital information. In addition, applicants will be able to follow the evaluation process.



The profile screen is a modal window titled "My Profile". It contains fields for "First Name" (Taye), "Last Name" (Ayele), "Phone", "Email", "Username", and "Password". There are "Save" and "Cancel" buttons at the bottom. A red arrow points to the "Profile" tab in the background menu.

3. Profile

Under the 'Profile' tab, applicants can confirm their name and contact information, and customize their username and password. Hit 'Save' to upload this information to the database

Personal Information

Surname:

Middle Name:

Given Name:

Gender: ☐ female ☐ male Date of birth:

If you were born in Canada please identify your affiliation to aboriginal community (if applicable)

Contact Information:

Apartment/suite number: Street:

City: Burnaby Address:

Country: Canada Postal Code:

Province/State: British Columbia

Phone: E-mail:

Submit

4. Personal Information

Under the 'Personal Information' tab applicants will update their complete contact information and relevant personal information. Hit 'Submit' to upload this information to the database

CANADIAN FEDERATION OF PROFESSIONAL FORESTERS ASSOCIATION
Credential Assessment for Foreign-Trained Applicants and Graduates of Non-accredited Programs

You are logged as: **Taye Bekele Ayele** Log Out Profile

Education Background

Add School

School Name:

Type of School:

Degree:

Country:

Province/State:

Graduation Year:

OK Cancel

5. Education Background

Under the 'Education Background' tab applicants will input their relevant education information. This includes The type of school (Graduate, Undergraduate, Technical, etc), the degree earned (PhD, MSc, BSc, Diploma, etc), the country and date of graduation. Please add a school for each relevant degree earned. Hit 'OK' to upload this information to the database

Digital Documents

Applicant Declaration (PDF format, less than 2 pages long and signed by applicant)

☐ File has been uploaded ☐ File has been verified **Upload**

Curriculum Vitae (PDF format, most current and line numbering)

☐ File has been uploaded ☐ File has been verified **Upload**

Provincial Application Form (PDF format)

☐ File has been uploaded ☐ File has been verified **Upload**

Credential Assessment - Transcripts review (PDF format, if needed)

☐ File has been uploaded ☐ File has been verified **Upload**

Course Descriptions (PDF format)

☐ File has been uploaded ☐ File has been verified **Upload**

6. Digital Documents

Under the 'Digital Documents' tab applicants will upload each document required to support their application. Hit 'Upload' to upload each document to the database. Please ensure that that file names follow the 'File Name Protocol' in Appendix 7. Once documents have been successfully uploaded a green check will be placed in "file has been uploaded" check box. Once documents have been reviewed and verified by the registrar a green check will appear in the "file has been verified" check box. If the documentation is not complete the Registrar will request revisions.

Assessment Process

Application Status: **In Progress**

7. Assessment Process

Once all information has been successfully uploaded the Registrar will confirm that the application portfolio is complete. Applicants can track the progress of the assessment process through the 'Assessment Process' tab.