



2014

# ASSESSOR'S MANUAL

PATHWAYS TO REGISTRATION AS A REGISTERED FOREST TECHNOLOGIST



# CONTENTS

- Background ..... 3
- Application at a Glance ..... 4
- The Application Process ..... 9
- Pre-screen..... 11
- Enrollment ..... 17
- Articling Period ..... 20
- Registrar's Academic Committee ..... 22
- Assessment Panel..... 24
- Competency Decision ..... 25
- Gap Filling ..... 27
- Re-Assessment..... 29
- Registration Exam..... 31
- Appendix 1: Report Template..... 33
- Appendix 2: Sample CV ..... 38
- Appendix 3: Adequate Course Outline Sample ..... 40
- Appendix 4: Inadequate Course Outline Sample..... 44
- Glossary..... 48



## FORWARD

The Association of British Columbia Forest Professionals (ABCFP) is the professional regulatory body for the practice of forestry in British Columbia. The **Foresters Act** grants Registered Forest Technologists (RFT) the right to practice professional forestry to the extent consistent with their education, training and experience.

This manual is intended for assessors and explains the assessment procedures for enrolment and registration of RFTs in British Columbia. Those assessed under this process will have graduated from Canadian Technology Accreditation Board (CTAB) non-accredited forestry or allied science programs in Canada or from allied science or forestry programs outside of Canada. Pathways to registration and competency recognition are highlighted but should be placed in the context of the other process tools that can be accessed through the ABCFP in British Columbia.

Applicants may come from a variety of educational and professional backgrounds.

For example, they may:

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

The assessment process provides a mechanism to verify knowledge, education, and competency for formal recognition by the ABCFP.

Applicants may begin the process of having their education and experience recognized under this process at any time. Initial contact with the ABCFP Registrar is encouraged as early as possible.

If applicants are practicing internationally and planning to immigrate to Canada, they may begin by contacting the ABCFP. These applicants may need to collect and can then submit the required documentation while still abroad. This is particularly valuable when transcripts and educational documentation must be collected.

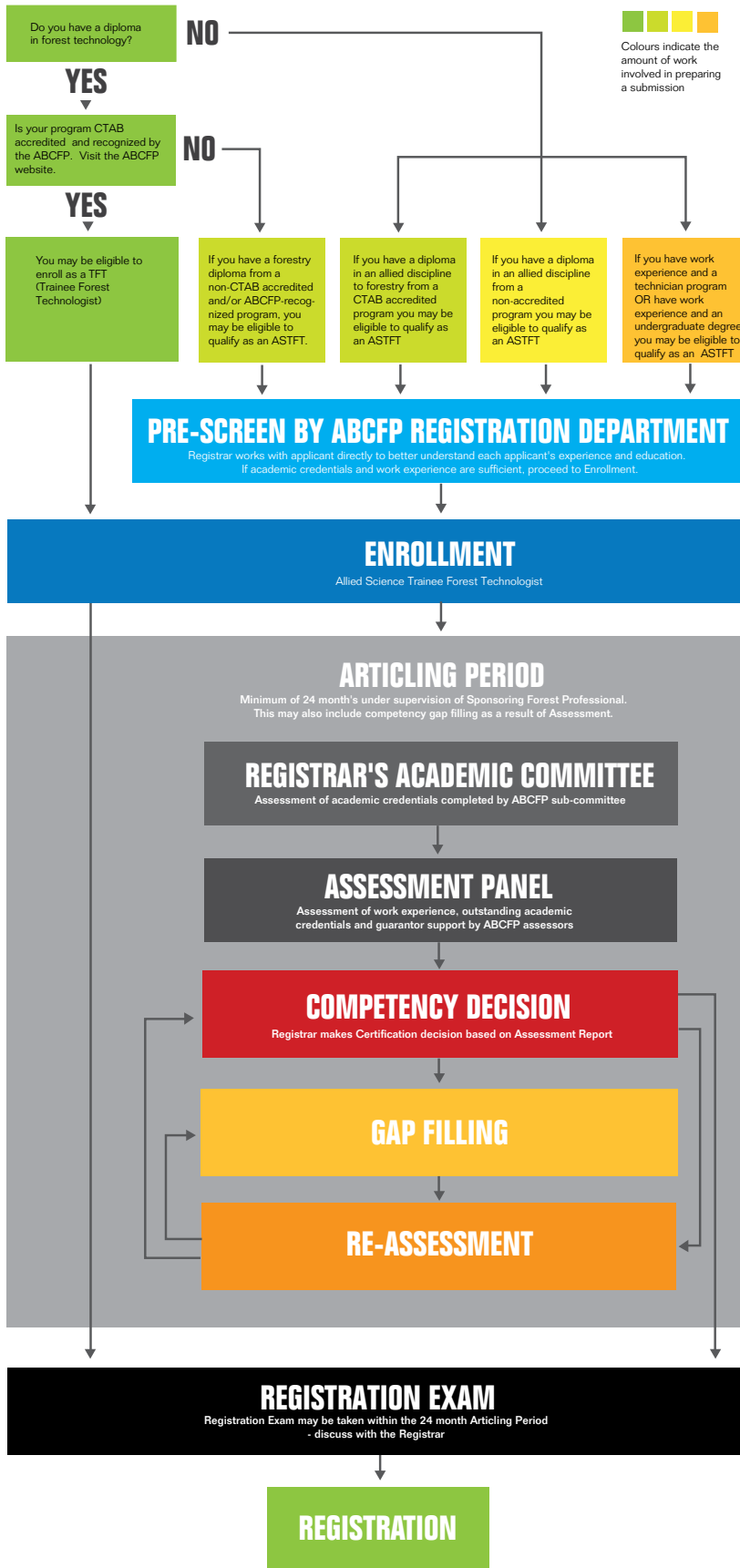
Significant effort will be required by the applicant to assemble relevant documentation, craft a clear and concise curriculum vitae (CV), complete all forms and self-assessment tools, find Guarantor's who will attest to their experience and demonstrable competencies, prepare an applicant declaration, and create a cogent application portfolio.

Participating in this process does not guarantee enrolment or registration. Furthermore, having competencies recognized under this process, and eventually becoming registered, will not guarantee job placement.

### **Compensation**

**If not otherwise compensated (e.g. through regular work allowances), a volunteer assessor will receive a \$300 honorarium for time and effort. All reasonable expenses related to the assessment process will be reimbursed. Reasonable expenses for travel, accommodation, and meals will be reimbursed with original receipts.**

# APPLICATION AT A GLANCE



## Pathways

- see page 9

## Pre-Screen

- see page 11

## Enrollment

- see page 17

## Articling Period

- see page 20

## Registrar's Academic Committee

- see page 22

## Assessment Panel

- see page 23

## Competency Decision

- see page 25

## Gap Filling

- see page 27

## Re-Assessment

- see page 29

## Registration Exam

- see page 31

## Registration

- see page 31

## Core Competency

### The 14 Core Competency standards are:

1. Office preparation for field operations and data acquisition
2. Navigation to the site
3. Field Operations and Data Acquisition
4. Data Input in the Field
5. Data Analysis in the Field
6. Data Input in the Office
7. Plan Preparation and Presentation in the Office
8. Emergency Response
9. Applied Research
10. Ethics and Professionalism
11. General office routines
12. Math
13. Science
14. Social Science

## Practice Areas

### Introductory or Communication Level

There are four mandatory introductory or communication level forestry practice area standards:

1. Forest Operations
2. Forest protection
3. Silviculture
4. Measurements

### Intermediate or Major Level

There are at least two intermediate level practice areas for forestry or for an allied renewable resource discipline:

Eg. GIS, Wildlife, Urban Forestry, etc.



Photo: Gordon Haley, RFT

# Competency Standards for Enrollment

## CORE

1. Overall 70% with and/or without supervision.
2. No Individual Category (14) less than 50% with and/or without supervision.
3. Math and Applied Science greater than 50% with and/or without supervision.

## PRACTICE AREAS

### Communication or Introduction Level

1. Overall 70% with and/or without supervision.
2. No individual practice area less than 50% with and/or without supervision.

### Intermediate or Major Level

1. 2 practice areas greater than 80% with and/or without supervision.
2. May be allied practice areas - assess accredited outcome statements from program.

**Applicants that meet this level of articling and professional development workshop requirements will be eligible to write the Trainee Forest Technologist exam**

## Summary of Requirements

To summarize, applicants must have:

- Most of the core competency skills (self-assessment of core competencies);
- Most of the introductory or communication level skills in all four forestry practice areas (self-assessment of the Practice Area outcomes); and
- Two in-depth, intermediate level or graduation level skills from the four practice areas or from an allied accredited renewable resource program such as GIS, Wildlife, Recreation, Range, Resource Planning, Professional Development Plan etc
- An acceptable applied research project
- A basic math assessment

## Supporting Documentation

To support the self-assessment, applicants must also provide the necessary documentation:

- Completed Application Form including signed Declaration
- Official transcript from graduating institution (sent directly to the Registrar from the institution)
- Course descriptions for all post secondary courses completed
- Curriculum Vitae (CV) with lines numbered
- Professional documents
- Professional Development Plan (refer to Articling Policy – ([http://www.abcfp.ca/regulating\\_the\\_profession/documents/policy\\_Articling\\_2010.pdf](http://www.abcfp.ca/regulating_the_profession/documents/policy_Articling_2010.pdf))).

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.

## Applied research Project Report

A suitable applied research project report must be submitted. The report can be from a course already taken, it may be a professional report produced as a job requirement or it may be a new report specifically for this application. The applied research report must demonstrate the ability to define a technical issue, evaluate collected data related to the testing of procedures, methodology or equipment according to a developed hypothesis.

## Math Assessment

Due to varied math requirements of technologist programs it may be necessary to supplement the endorsement process. Depending on the endorsement answers and the guarantors' assurances a short written math test may be provided.

## Assessment Costs:

Assessment fee: \$300, payable no later than submission of the application portfolio.

**Targeted Competency Reassessment fee:** \$100

**Complete Competency Reassessment fee:** \$200

### Regulatory Body Fees

These are case specific and applied at the discretion of the ABCFP. Check with the registrar to determine if any of these apply.



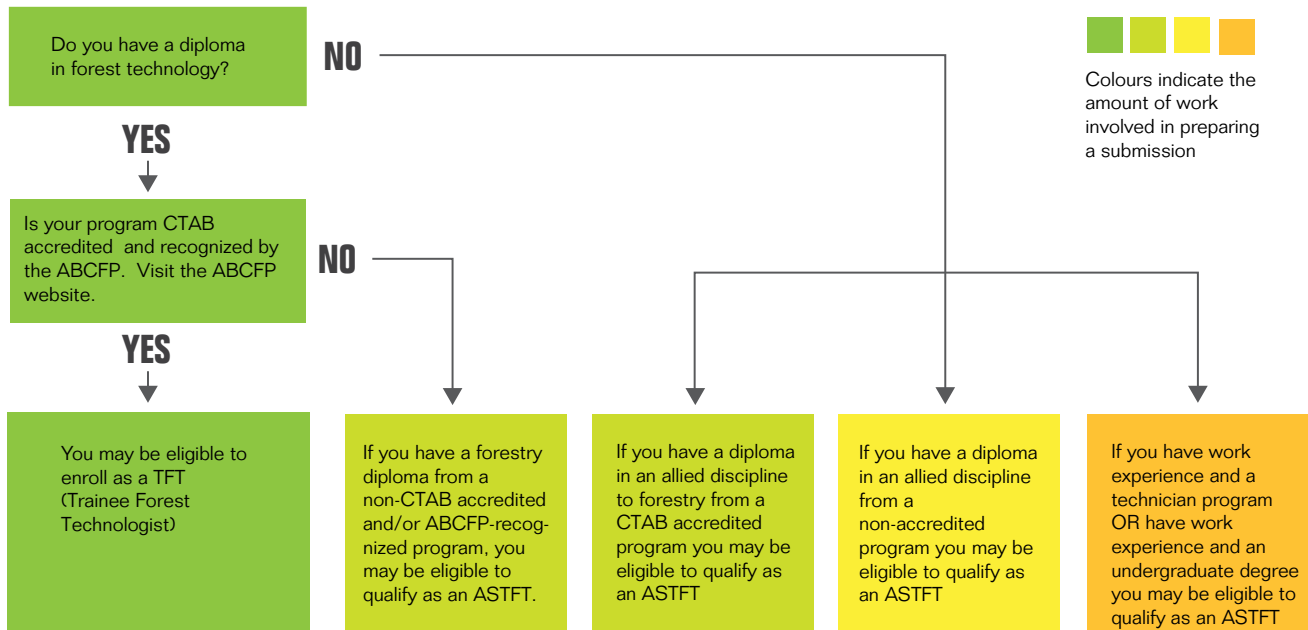
- Enrolment fee:
- Exam fee (variable and dependent upon whether or not the regulatory body has a registration or jurisprudence exam).
- Administrative fee of \$100 (may be applied during the application and assessment phases, and during gap-filling, when procedural work, supervision, and reassessment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

**Other Costs:**

Costs payable to other organizations (if applicable)

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

# THE APPLICATION PROCESS



## Notice to Assessors:

**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 and 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 your application with fluff and ensure to 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 or taken from foreign institutions.**

Applicants can become registered as an RFT through several different pathways, based on their post-secondary education and their work experience:

- ABCFP Accredited Forestry Technology Programs or
- Recognized but non-ABCFP accredited forest technologist programs; or
- Allied diplomas of technology; or
- Accredited allied degrees and comprehensive additional technical education and/or experience; or
- ABCFP recognized Technician Certificate plus additional requirements outlined in the Certification Standards
- Recognized technician certificate plus additional requirements outlined in the Certification Standards.

Avenues to registration may include accredited or non-accredited forestry and allied technologist or university programs or in some cases through an ABCFP recognized forestry technician program.

The following table lists the characteristics of each of these various pathways to registration.

<b>Category of Program</b>	<b>Examples of Programs</b>	<b>Characteristics of Program</b>
Forestry, CTAB and Recognized	Selkirk College - Forestry Technology College of New Caledonia - Natural Resources & Environmental Technology [formerly Forest Resource Technology] BC Institute of Technology - Renewable Resources Forest Ecosystems Vancouver Island University - Forest Resources Technology	Use accreditation model
Forestry, recognized but not CTAB	Northern Alberta Institute of Technology - Forest Technology	ABCFP has past history with these institutions
Allied CTAB accredited	BCIT Fish, Wildlife and Recreation Technology Program	No field core and 2 intermediate skills and Does not have communication level skills. Missing forestry-specific training
Allied, not CTAB and not recognized	Vancouver Island University, Resource Management Officer Technology Program	Assessment process will determine additional training / education requirements Has field core (pre-screen available from ABCFP) Allied technical specialty required
ABCFP recognized forestry technician programs	Algonquin College - Forestry Technician BCIT - Forestry Technician Sir Sandford Fleming College - Forestry Technician College of the North Atlantic - Forestry	1 year program Field core plus applied skills Has field core (pre-screening available from ABCFP) Forestry technical specialty required
Unclassified forestry or allied science programs	Canadian and or non-Canadian diplomas and degrees such as Geography, Agriculture, GIS.	International Credential Evaluation Services assessment required Includes non-Canadian applicants. Has field core (pre-screening available from ABCFP) Forestry technical specialty required

## PRE-SCREEN BY ABCFP REGISTRATION DEPARTMENT

Registrar works with applicant directly to better understand each applicant's experience and education. If academic credentials and work experience are sufficient, proceed to Enrollment.

- 1 Applicant seeks information from ABCFP website**
- 2 Applicant contacts Registrar to learn about application process and payment of fees**
- 3 Applicant completes Core Competency and Scope of Practice self assessment to determine if s/he wants to proceed**
- 4 Applicant discusses self-assessment with registrar by phone or e-mail. If applicant decides to proceed then Registrar opens a file in database**
- 5 Applicant gathers documentation and submits draft portfolio for pre-screening**
- 6 Registrar pre-screens applicant for completeness of portfolio and provides feedback**

### **1 Applicant seeks information from ABCFP website**

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.abcfp.ca](http://www.abcfp.ca) for general information as well as digital materials that will help you with your application.

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

The next step is to contact the ABCFP Registrar to discuss your post-secondary education and work experience. The Registrar will pre-screen each applicant's CV and determine eligibility for registration as an RFT. When you make contact be sure to:

- Briefly discuss your qualifications, competencies, and the assessment process with the Registrar.
- Get an understanding of the enrollment and / or registration process that will occur along with the assessment. Ask the Registrar if this process is appropriate given your qualifications, experience, and career goals.

### 3 Applicant completes Core Competency and Practice Area self assessment to determine if s/he wants to proceed

The self-assessment is intended for applicants that have graduated from a program that is accredited and/or not officially recognized by the ABCFP. These include:

- Recognized but non-ABCFP accredited forest technologist programs; or
- Allied diplomas of technology; or
- Accredited allied degrees and comprehensive additional technical education and/or work experience; or
- Recognized technician certificate plus additional requirements outlined in the Certification Standards.

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 applicants must have to meet the These programs have not been accredited by the ABCFP and as a result knowledge and competency of each applicant needs to be assessed. This begins with each applicant completing a self-assessment, with the following components:

A self-assessment of core competencies: These are the base competencies that applicants from a forestry program or from an allied program must have to communicate and function within the forestry profession. The core competencies are those common to most resource-based professions. A high level of compliance is expected.

## Core Competencies

The “core competency” assessment has 14 categories:

1. Office preparation for field operations and data acquisition
2. Navigation to the site
3. Field Operations and Data Acquisition
4. Data Input in the Field
5. Data Analysis in the Field
6. Data Input in the Office
7. Plan Preparation and Presentation in the Office
8. Emergency Response
9. Applied Research
10. Ethics and Professionalism
11. General office routines

12. Math
13. Science
14. Social Science

Each category is further subdivided by logical task. Outcomes are presented for each of the groupings.

Each outcome has a question attached:

- The outcome cannot be completed by the applicant;
- The applicant can complete the task under supervision; or
- The applicant can complete the task unsupervised.

Each core competency has individual outcomes that the applicant must answer and a guarantor(s) must confirm each outcome. Note that the sign-off is a professional endorsement of the applicant's ability.

## Practice Areas

A Self Assessment of the Practice Areas outcomes: These are the competencies specific to the profession of forestry rather than the common core which applies to all resource professions. The outcomes in this case are grouped by the four ABCFP practice areas for technologists:

- Forest Operations
- Forest protection
- Silviculture
- Measurements

The process is the same for Practice Areas as for the core competencies assessment. Each of the four practice areas has the outcomes presented as both "introductory or communication" level and as "intermediate" level. Each practice area has individual outcomes that the applicant must answer and a guarantor(s) must confirm each outcome.

Note that the sign-off is a professional endorsement of the applicant's ability.

## Requirements for acceptance.

Through this self-assessment process applicants must demonstrate the equivalent academic knowledge, competencies and skills to that of a graduate from an ABCFP-accredited forestry program.

The required knowledge, competencies and skills may be from the academic program content, additional continuing education or from work experience.

To summarize, applicants must have:

- Most of the core competency skills (self-assessment of core competencies);
- Most of the introductory or communication level skills in all four forestry practice areas (self-assessment of the Practice Areas outcomes); and
- Two in depth, intermediate level or graduation level skills from the four practice areas or from an allied accredited program such as GIS, Wildlife, Recreation, Range, Resource Planning, Professional Development Plan etc
- An acceptable applied research project
- A basic math assessment

Applied research Project Report: A suitable applied research project report must be submitted. The report can be from a course already taken, it may be a professional report produced as a job requirement or it may be a new report specifically for this application. The applied research report must demonstrate the ability to define a technical issue, evaluate collected data related to the testing of procedures, methodology or equipment according to a developed hypothesis.

Math Assessment. Due to varied math requirements of technologist programs it may be necessary to supplement the endorsement process. Depending on the endorsement answers and the guarantors' assurances a short written math test may be provided.

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

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.

#### **5 Applicant gathers documentation and submits draft portfolio for pre-screening**

The Applicant must complete the RFT Application Form included in Appendix 1.

Part A of this form includes applicant contact information as well as Guarantor contact information.

## Guarantor

Have guarantor(s) complete the endorsement for each of the self-assessment forms.

For Core for Applicants (Tab B) please refer to columns J to N.

For Practice Areas - App (Tab C) please refer to columns J to N.

Note: "Sign-off" is required at the end of each skill grouping – note highlighted field. If there is more than one guarantor signing off, they must sign off only the competencies they have endorsed-this may require sign-off in non-highlighted fields.

Have your guarantor(s) complete the 'Guarantor's Reference' form. The reference form will be used to establish the relationship between the applicant and your guarantor(s) (if the guarantors are different from the sponsor).

Guarantors must be registered forest professionals who are able to confirm the applicant's competency and are prepared to provide professional endorsement of that confirmation. Additional endorsements provided by registered or non-registered professionals (i.e., academic referees) outside of BC will also be considered. The guarantor(s) must sign and seal the reference form. Applicants must include completed reference forms with the application package.

## Additional Documentation.

Part B of the RFT Application Form is a documentation checklist. Please ensure:

- Provide official school transcript with course descriptions. Post-secondary institutions must send official transcripts directly to the ABCFP Registrar. See Appendix 4 and 5 for Sample Course Outline. Transcripts have been translated by a certified translator, as arranged with ABCFP, at the applicant's cost. Note: Applicants do not have to re-submit transcripts already on file with ABCFP.
- Transcripts have been reviewed by a recognized credential assessment agency, as arranged with ABCFP, at the applicant's cost.
- Course descriptions are included and translated (digital), at the applicant's cost.
- Three Guarantors have provided Guarantor Feedback Forms directly to the ABCFP (hard copy or digital).
- Translation of Guarantor Feedback Forms has been provided to the ABCFP, at the applicant's cost.
- Self Assessment Matrix is complete and cross referenced with supporting documents (digital)
- Applicant Declaration is less than 2 pages long and has been signed by the applicant (digital).
- Supporting documentation has been supplied (digital)
- Provide an acceptable applied research report that may be written for this application, a professional report done as part of your work history or an acceptable applied research report from a course or program. (Refer to criteria in Core for Applicants (Tab B) on line item #250 "Applied Research Project").
- Applied research Project Report: A suitable applied research project report must be submitted. The report can be from a course already taken, it may be a professional report produced as a job requirement or it may



be a new report specifically for this application. The applied research report must demonstrate the ability to define a technical issue, evaluate collected data related to the testing of procedures, methodology or equipment according to a developed hypothesis.

- Provide an up-to-date CV. Number each line consecutively in the CV in the left margin from the beginning of the document (to set-up up your document in MS Word: go to File, Page Setup, Layout, Add line numbering, Continuous). See Appendix 3 for Sample CV

## **Math Assessment**

Due to varied math requirements of technologist programs it may be necessary to supplement the endorsement process. Depending on the endorsement answers and the guarantors' assurances a short written math test may be provided.

Provide a detailed Professional Development Plan developed with the assistance of a sponsor or other forest professional. Indicate in this report how and when items in the plan will be completed.

The ABCFP Registrar will engage assessors to assess the application package. If this assessment identifies competency deficiencies then gap-filling requirements and timelines will be suggested. If no competency deficiencies are identified then the applicant will be forwarded a self-assessment math test for completion.

The ABCFP Registrar may schedule a conference call with the applicant and the guarantor to clarify any areas of apparent shortcoming or strategies for them to be addressed.

## **6 Registrar pre-screens applicant for completeness of portfolio and provides feedback**

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.

## ENROLLMENT

Allied Science Trainee Forest Technologist

### 7 A

Those applicant's that graduated from accredited institutions may be eligible to proceed directly to the Articling Period.

### 7 B

Registrar decides applicant is ready and initiates formal application

### 8

Applicant submits application portfolio and pays fees as directed by the Registrar

### 9

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

### 10

Registrar reviews portfolio for completeness and to ensure applicant suitability

### 11

#### A

Registrar confirms that the applicant portfolio is complete

#### B

Registrar identifies deficiencies and requests applicant to fill gaps in portfolio.

GO BACK TO 8

### 12

Registrar notifies applicant in writing of decision to proceed with assessment.

## 7 A Those applicant's that graduated from accredited institutions may be eligible to proceed directly to the Articling Period.

See Registration Guide at [www.abcfpa.ca](http://www.abcfpa.ca)

## 7 B Registrar decides applicant is ready and initiates formal application

Once the Registrar is satisfied with your documentation, you will be provided access to the database. Instructions for the use of this database will be provided at this time.

## 8 Applicant submits application portfolio and pays fees as directed by the Registrar

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. Remember that official transcripts, credential assessments and translations, if required, are to be sent directly from the issuing institution. Guarantors 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 guarantors have provided completed Guarantor 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.

## Fees

The association fee for this review process that must be submitted with the assessment package are:

Assessment: \$300

Targeted Reassessment: \$100 (see reassessment page 25)

Complete Reassessment: \$100 (see reassessment page 25)

Forward the completed package in electronic form (with the exception of school transcripts) to the ABCFP - Registration Department via e-mail at [admissions@abcfp.ca](mailto:admissions@abcfp.ca).

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

Guarantors 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.

Endorsement or sign-off by a guarantor. The applicants' guarantor (e.g. sponsor, supervisor(s), professional colleagues or academic referees) must endorse the overall package, by certifying that the applicant meets the competencies indicated in the submitted package to the best of their knowledge. The questions require that the guarantor confirm the applicant's self-assessment.

Guarantors must ensure that when certifying work experience they are in fact confirming or are witness to the candidate's ability to deliver the required competency outcome and are not merely confirming the candidate's character. Guarantors must also indicate in Columns 'O and P' practice areas (if any) that they are not endorsing.

Guarantors must include a brief explanation (1 or 2 sentences) in Column 'Q' regarding why they believe a candidate has a particular competency. The guarantor needs to look closely at each competency they are signing off on to ensure that they clearly understand what the candidate is required to do and what the guarantor is assessing.

Each of the 14 core competency outcomes and four (4) Practice Areas areas require a signature or "sign-off" by the guarantor.

Note that the sign-off is a professional endorsement of the applicant's ability.

## **10 Registrar reviews portfolio for completeness and to ensure applicant suitability**

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

## **11 A Registrar confirms that the applicant portfolio is complete**

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

## **11 B Registrar identifies deficiencies and requests applicant to fill gaps in portfolio.**

Additional information is required. 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.

## **12 Registrar notifies applicant in writing of decision to proceed with assessment.**

You will be notified in writing of the decision, including an explanation of that decision, and summary of next steps.

## ARTICLING PERIOD

Minimum of 24 month's under supervision of Sponsoring Forest Professional.  
This may also include competency gap filling as a result of Assessment.

The articling period is the time you must spend as an enrolled member completing academic requirements, if any, improving competencies, if required, and gaining relevant work and professional experience under the guidance of a registered member before you can write a registration examination and apply to become a registered member. This includes this credential assessment process as well as any gap filling requirements.

A Professional Development Plan (Plan) and the Enrolled Member Practice Diary (Diary) are required for all enrolled members. The Plan and Diary provide the enrolled member, the sponsor, and, if required, the association, with a chronological written record of professional development. The ABCFP may require that the enrolled member submit the Plan and Diary to verify that the articling requirements of the ABCFP have been met.

### Enrolled member Obligations

The enrolled member is obligated to:

- follow the requirements of this Articling Policy;
- provide the sponsor and the ABCFP with the name of the active RPF/RFT supervising his/her work (if it is someone different than the sponsor);
- utilize only the designation of FIT or FP or TFT (as the case may be) as described in the Act and Bylaws;
- work with the sponsor to develop a personalized Professional Development Plan as described in Section 5 below;
- keep and maintain an Enrolled Member Practice Diary which records work undertaken and progress towards completion of the Professional Development Plan;
- obtain broad exposure to the practice of professional forestry (FIT/FP) or forest technology (TFT) in preparation for registration, including (but not limited to) exposure to each of the practice areas;
- meet with the sponsor regularly (in person or otherwise ) to discuss work undertaken, professional development and the progress towards achieving the Professional Development Plan goals/outcomes;
- complete any outstanding requirements for registration; and,
- prepare for the registration exam.

## Sponsor Obligations

Sponsors is obligated to:

- follow the requirements of this Articling Policy;
- mentor and guide enrolled members through the articling period and the
- registration examination process;
- ensure enrolled members are aware of and practice in accordance with the Foresters Act and the ABCFP's bylaws;
- ensure enrolled members only engage in practice under the supervision of active RFTs in good standing;
- work with enrolled members to develop their Professional Development Plans;
- ensure enrolled members only take on work appropriate for their experience and stage of professional development;
- meet with enrolled members regularly (in-person or otherwise ) to discuss work undertaken, professional development and their progress towards achieving their Professional Development Plan goals/outcomes, and to otherwise satisfy themselves that the enrolled members are proceeding as planned;
- assist enrolled members in broadening their experience and knowledge in the practice of professional forestry/forest technology by guiding them towards opportunities to work, accompany or observe other practitioners, and/or areas of
- help enrolled members prepare for their registration exams;
- monitor the enrolled members progress towards meeting their articling requirements. Periodically review the enrolled members practice diaries and verify that the enrolled members are meeting the specifications of their Professional Development Plan;
- if there are any problems or concerns that enrolled members may not be meeting the specifications of their Professional Development Plan or not properly preparing to become a fully registered members of the ABCFP, to notify the ABCFP registration department forthwith about your concerns; and
- where enrolled members successfully complete their articling requirements to sign and seal the Confidential Sponsor's Report as part of the Enrolled Members Examination Application package.

Refer to Registration Policy & Articling Policy: [http://www.abcfp.ca/regulating\\_the\\_profession/documents/policy\\_Articling\\_2010.pdf](http://www.abcfp.ca/regulating_the_profession/documents/policy_Articling_2010.pdf)

## REGISTRAR'S ACADEMIC COMMITTEE

Assessment of academic credentials completed by ABCFP sub-committee

- 13** Registrar's Academic Committee receives digital assessment package from Registrar
- 14** Registrar's Academic Committee conducts and completes assessment of academic credentials
- 15** Registrar's Academic Committee submits marked-up self assessment to Registrar
- 16** Registrar accepts marked up self-assessment and prepares for assessment package for Assessment Panel.

### **13 Registrar's Academic Committee receives digital assessment package from Registrar**

The ABCFP Registrar will engage the Registrar's Academic Committee to assess the application package.

### **14 Registrar's Academic Committee conducts and completes assessment of academic credentials**

### **15 Registrar's Academic Committee submits marked-up self assessment to Registrar**

If this assessment identifies competency deficiencies then a marked up version of the self assessment matrix will be returned to the Registrar. If no competency deficiencies are identified then the applicant will be forwarded a self-assessment math test for completion.

### **16 Registrar accepts marked up self-assessment and prepares package for the Assessment Panel**

If there are gaps, then the Registrar will receive the marked up self assessment matrix and prepare an assessment package for the Group B Assessment Panel

## ASSESSMENT PANEL

Assessment of work experience, outstanding academic credentials and guarantor support by ABCFP assessors

- 17** Assessment Panel receives digital assessment package from Registrar
- 18** Assessment Panel conducts and completes competency assessment
- 19** Assessment Panel submits Assessment Report to Registrar

### **17** Assessment Panel receives digital assessment package from Registrar

The ABCFP Registrar will engage assessors to assess the application package.

### **18** Assessment Panel conducts and completes competency assessment

The Group B assessment panel receives the assessment package and all other necessary documents from the Registrar. 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 guarantor background checks. The goal of the background check is to provide evidence that the guarantor 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 guarantors. If the assessment panel has any concerns about a guarantor's ability to sign off on the applicant's submission, the panel leader will discuss this with the Registrar. The Registrar may choose to contact the applicant and ask for additional guarantors. If the panel has questions or needs clarification during their evaluation of your package, they may contact you directly.

### **19** Assessment Panel submits Assessment Report to Registrar

After careful review and discussion of your application, the Assessment Panel completes an assessment report with one of the following sets of findings:

1. Your portfolio demonstrates that you adequately meet the demonstrable competencies; or
2. Additional information is required. The Assessment Panel will identify what is missing. The Registrar 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 Registrar.

## COMPETENCY DECISION

Registrar makes Certification decision based on Assessment Report

- 20** Registrar accepts report and sets up interview with applicant and adjudication panel.
- 21** Registrar provides applicant with written notice of competency decision
- 22**
- |   |  |  |
|---|--|--|
| <b>A</b> Applicant has competency gaps and must fill these gaps.<br><b>GO TO 23</b> | <b>B</b> Applicant requests reassessment.<br><b>GO TO 28</b> | <b>C</b> Applicant has all competencies. Complete Articling Period and Prepare for Exam. |
|---|--|--|

### **20 Registrar accepts report, interviews applicant and makes registration decision**

After reviewing your assessment report and conducting the applicant interview the Registrar and Adjudication Panel make 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.

Applicants with outstanding learning or experience requirements will receive guidance from the Registrar about gap-filling or supplemental activities [22a]. Gap filling is described below.

If you disagree with the assessment report, you may request either a targeted or a complete reassessment [22b]. The reassessment process is described below.

### **21 Registrar provides applicant with written notice of competency decision**

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.

### **22 A Applicant has competency gaps and must these gaps.**

Applicants with outstanding learning or experience requirements will receive guidance from the Registrar about gap-filling or supplemental activities [22A]. Gap filling is described below.

## **22 B Applicant requests reassessment.**

If you disagree with the assessment report, you may request either a targeted or a complete reassessment [22B]. The reassessment process is described below.

## **22 C Applicant has all competencies.**

If you are found to have all competencies [22C], you may complete Articling Period and Prepare for Exam.



Photo: Leah Ballin, FIT

## GAP FILLING

- 23 Registrar and applicant decide on gap-filling strategy with help from assessment panel.
- 24 Applicant proceeds to fill gaps and submits competency material to Registrar
- 25 Registrar reassess upgraded competency material
- 26 **A** Registrar interviews applicant, makes competency decision and provides applicant with written notice of decision. **B** Applicant still competency gaps. **GO BACK TO 24**
- 27 Applicant has all competencies. Complete Articling Period and Prepare for Exam.

### 23 Registrar and applicant decide on gap-filling strategy with support from Group B Assessment Panel report

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

The Registrar will discuss supplemental activities that can help you to learn or gain experience in the competencies that are lacking. Work with the Registrar to identify appropriate gap-filling activities that will help you to develop the missing demonstrable competencies.

### 24 Applicant proceeds to fill gaps and submits competency material to Registrar

Complete these gap-filling activities and thoroughly document the process to prove that you have gained the missing competencies. Thoroughly describe your activities, the learning outcomes, and any additional relevant information.

Keep in regular contact during this time to ensure the work is appropriate and you are following the requirements.

## **25 Registrar reassess upgraded competency material**

The Registrar will reassess your demonstrable competencies after completion of gap filling activities.

## **26 A Registrar interviews applicant and makes registration decision. Registrar provides applicant with written notice of competency decision**

Discuss these results with your regulatory body. There are two outcomes of this step:

1. Your portfolio demonstrates that you adequately meet the demonstrable competencies; or
2. Your portfolio does not adequately demonstrate that you meet the demonstrable competencies. Additional gap filling activities are required.

## **26 B Applicant still has competency gaps.**

If competency gaps still exist then additional gap filling activities will be discussed and agreed to by the Registrar and the Applicant

## **27 Applicant has all competencies.**

Once all gaps have been filled, you will complete Articling Period and Prepare for Exam.

## RE-ASSESSMENT

- 28** Applicant requests reassessment by providing written notice, rationale and payment of fees

### TARGETED RE-ASSESSMENT

- 29** **A** Applicant may provide additional information to demonstrate competencies
- 30** **A** Original Assessment Panel reassess competencies

### COMPLETE RE-ASSESSMENT

- B** Applicant may provide additional information to demonstrate competencies
- B** New Assessment Panel is assembled to reassess competencies

- 31** Applicant still has competency deficiencies.

**GO BACK TO 23**

Applicant has all competencies.  
Complete Articling Period and Prepare for Exam.

### **28** Applicant requests reassessment by providing written notice, rationale and payment of fees

If you do not agree with the results of the assessment report, you may request a reassessment. This request must be in writing, must be provided to the Registrar 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:

### **29** **A** Targeted Applicant may provide additional information to demonstrate competencies

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 \$100 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;

## **30 A Original Assessment Panel B reassess competencies**

Targeted Reassessment: 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;

## **29 B Complete Applicant may provide additional information to demonstrate competencies**

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 \$300, 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. 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 [23].

The reassessment decision is final.

## **30 B New Assessment Panel B is assembled to reassess competencies**

Complete Reassessment: 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.

## **31 Applicant still has competency deficiencies.**

If gaps are identified in the reassessment then the Registrar and the Applicant will agree to suitable gap-filling activities

## **or Applicant has all competencies.**

If the outcome of the reassessment is the decision that you has all of the competencies then you will complete the Articling Period and prepare for the exam.

## REGISTRATION EXAM

Registration Exam may be taken within the 24 month Articling Period  
- discuss with the Registrar

The final test of the enrollment period is the registration exam. The exam is a test of the candidate's knowledge, application and communication of principles, and issues of importance to the profession. Registration exam success begins long before the examination date. Preparation is important to gain the necessary knowledge as well as to develop a level of confidence to allow the enrolled member to relax and effectively communicate during the examination process. While it may have been many years since the sponsor has been involved in the exam, sponsors can assist enrolled members in acquiring the necessary resources, preparing for the exam, and by introducing them to a study group in preparation for the exam.

For more information visit the ABCFP Registration Exam webpage - [http://abcfp.ca/members\\_area/enrollment\\_to\\_registration/registration\\_exam.asp](http://abcfp.ca/members_area/enrollment_to_registration/registration_exam.asp)

## REGISTRATION



# ACKNOWLEDGEMENTS

This process is aimed at increasing the diversity of those practicing professional forestry in British Columbia by including professionals from a broad educational and experiential background. All those involved are optimistic that professional forestry in British Columbia will benefit greatly from this inclusion and look forward to the contribution of applicants who become RFTs 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 ABCFP members have provided significant guidance to these assessment procedures:

- Warren Burkinshaw, RFT
- Rick Chester, MNRM
- Pirie Elliot, RPF (Ret)
- Pete Schroder, RFP
- Norm Shaw, RFT (Ret), ATE
- Walter Tymkow, RFT
- Casey Macaulay, RPF, Associate Registrar
- Conrad Malilay, Manager , Registration
- Randy Trerise – Registrar

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;

# APPENDIX 1: REPORT TEMPLATE

## Confidential RFT Assessment Report

*This page is not to be shared with the applicant.*

Complete Assessment     Targeted Competency Reassessment     Complete Reassessment  
Core Competencies:  
Practice Areas:

### Applicant Information

Applicant:

Assessment Date (mm/dd/yy):

Summary of applicant's education:

Summary of applicant's work experience:

Summary of applicant's other qualifications:

### Assessment Panel Information

Group A Assessment Panel members:

Group A Assessment Panel Lead:

Group B Assessment Panel members:

Group B Assessment Panel Lead:

Dates and venues of assessment panel discussions (phone, face to face, etc):

Key decisions, delays, and communications:

Date assessment report sent to Registrar (mm/dd/yy):

Panel B Lead confirms assessment panel's consensus report.

# RFT Assessment Report

*This report can be shared with the applicant upon request.*

- Complete Assessment     Targeted Competency Reassessment     Complete Reassessment
- Core Competencies:  
Practice Areas:

## 1. Applicant Information

Applicant:

Assessment Date (mm/dd/yy):

## 2. Assessment of Core Competencies

### Standard 1: Office preparation for field and Data Acquisition

- Sufficient     Gap Identified     More Information Required

### Standard 2: Navigation to the site

- Sufficient     Gap Identified     More Information Required

### Standard 3: Field operations and data acquisition

- Sufficient     Gap Identified     More Information Required

### Standard 4: Data input in the field

- Sufficient     Gap Identified     More Information Required

### Standard 5: Data analysis in the field

- Sufficient     Gap Identified     More Information Required

### Standard 6: Data input in the office

Sufficient    Gap Identified    More Information Required

**Standard 7: Plan preparation and presentation in the office**

Sufficient    Gap Identified    More Information Required

**Standard 8: Emergency response**

Sufficient    Gap Identified    More Information Required

**Standard 9: Applied research**

Sufficient    Gap Identified    More Information Required

**Standard 10: Ethics and professionalism**

Sufficient    Gap Identified    More Information Required

**Standard 11: General office routines**

Sufficient    Gap Identified    More Information Required

**Standard 12: Math**

Sufficient    Gap Identified    More Information Required

**Standard 13: Science**

Sufficient    Gap Identified    More Information Required

**Standard 14: Social Science**

Sufficient    Gap Identified    More Information Required

### 3. Assessment of Scope of Practice Areas

#### Scope of Practice 1: Forest Operations Communication Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 1: Forest Operations Intermediate Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 2: Forest Protection Communication Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 2: Forest Protection Intermediate Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 3: Silviculture Communication Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 3: Silviculture Intermediate Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 4: Forest Measurements Communication Level

Sufficient    Gap Identified    More Information Required

#### Practice Area 4: Forest Measurements Intermediate Level

Sufficient    Gap Identified    More Information Required

**Practice Area 5: Allied Science Communication Level**

**Allied Science:**

Sufficient     Gap Identified     More Information Required

**Practice Area 5: Allied Science Intermediate Level**

**Allied Science:**

Sufficient     Gap Identified     More Information Required

**Practice Area 6: Allied Science Communication Level**

**Allied Science:**

Sufficient     Gap Identified     More Information Required

**Practice Area 6: Allied Science Intermediate Level**

**Allied Science:**

Sufficient     Gap Identified     More Information Required

**General Comments**

Assessment notes (adequacy of material, guarantor checks, assumptions made and to be checked by Registrar, etc.)

Concerns raised through guarantor background checks:     No concerns

Issues with transcripts, issuing institutions, etc:     None

**Recommendations**

Recommendations /Suggestions for gap filling:

# APPENDIX 2: GUARANTOR FEEDBACK FORM

## REGISTERED FOREST TECHNOLOGIST GUARANTOR FEEDBACK FORM



To act as a guarantor, you must have direct knowledge as a supervisor, mentor or colleague of the applicant's demonstrable competencies. Please complete the following confidential form and e-mail it directly to the ABCFP manager, registration: [cmalilay@abcfp.ca](mailto:cmalilay@abcfp.ca) If more space is required, guarantors should append a brief personal biography that includes reference to the attributes/experience that enable them to attest to the competencies of the applicant as checked off on the attached table. (Page 3)

### APPLICANT

**Last Name**

**First Name**

### GUARANTOR

**Last Name**

**First Name**

**Professional Designation**

**Professional Organization**

**Member Number**

**Title**

**Employer/Company Name**

**Street Address**

**City**

**Province/State**

**Postal Code**

**Country**

**Phone**

**Extension**

**Email**

### GUARANTOR BACKGROUND INFORMATION

## PART A: CHARACTER AND REPUTE

1. I have known the applicant for a period of:

Months / Years

I have known or been associated with the applicant as his/her:

Supervisor     Colleague     Other (explain)

a. I believe the applicant to be of good character and know of no reason that would suggest otherwise.

Yes     N/A     No (explain)

b. I am  Aware  Not Aware that the applicant has been subject to any criminal convictions or any civil indictable offenses or current charges that relate to the practice of professional forestry. (If aware please provide the nature of the offense(s)).

2. Based on my personal competence and my direct observation of him or her, I confirm that the applicant meets the Demonstrable Competencies/Performance Indicators to which I have attested (those that I have initialed) on the applicant's Self Assessment Matrix.

Yes     No     N/A     With Reservations

3. If you answered "No" or "With reservations" above, identify the deficiencies and provide a brief but candid explanation.

## PART B: CORE COMPETENCY SELF ASSESSMENT DETAIL

Guarantors must be able to confirm the applicant's demonstrable competencies and be prepared to provide professional endorsement to that confirmation. This includes completion of the endorsement by affixing the guarantor's signature and professional stamp or seal (if applicable) in appropriate areas of supporting documents provided by the applicant and on the accompanying check-off form. For more details, please refer to the Handbook for Applicants.

## PART C: CERTIFICATION OF THE DECLARATION FORM

I recognize that a person commits an offence if he/she applies for membership using false or fraudulent representation and that a person commits an offence who knowingly assists another person to apply using false or fraudulent representation. I therefore certify that the information provided in this form is true to the best of my knowledge and belief.

Signature

Date Signed



# APPENDIX 3: SAMPLE CV

1 **Name of Candidate**

2 Contact info

---

3 **EDUCATION**

4 **Diploma in Forest Technology, BCIT 2002.**

5

6 **WORK EXPERIENCE**

7 **Senior Technician, Acme Inc, Salmon Arm, BC, July 2008 – present.**

8 - Block development plans – engineering, site identification and classification, timber cruising,  
9 reporting, data analysis, data management

10 - Project Supervision – dealing with 20 plus people in compliance with Work Safe BC, keeping strong  
11 communication with clients (Louisiana Pacific, BCTS, MOF Research Branch, etc)

12 - Mountain Pine Beetle surveys

13

14 **Forest Technician, Environmental Inc, High Level, AB, April 2008 – June 2008.**

15 - Cut Block and Road Layout, aerial photo interpretation, GPS data collection, block description  
16 reports, detailed block plans, and correction and editing of field collected data in Pathfinder software

17 - Establishment and measurement of growth and yield plots, pre-harvest assessments, regeneration  
18 surveys, timber cruising, environmental assessments, spill response/cleanup and office compilation  
19 and report writing

20

21 **Associate Research Assistant, University of Northern BC, October 2006 – June 2007.**

22 Primary responsibilities included:

23 - Supervising and leading LAI data collection;

24 - Collaborating on research proposals (mostly mountain pine beetle related), writing technical reports  
25 and co-authoring journal articles;

26 - Scheduling field safety, data collection, quality control and analysis.

27

28 **Forest Technician, Consult Inc., Prince George, BC, September 2006 – October 2006;**

29 - Identified ecosites in Northern BC, based on species and soil type;

30 - GPSed block boundary and road traverse, cruised and measured timber plots;

31

32 **Silviculture Research Assistant, University of Alberta, May 2003 – August 2003-December 2005,**

33 - Assisted with design and implementation of silviculture research projects;

34 - Performed below and above ground biomass sampling, processing, data analysis and interpretation;

35 - Monitored, maintained and calibrated dataloggers, sensors and other equipment used into the field  
36 and laboratory;

37 - Collected, processed, analyzed and interpreted field data;

38 - Installed PSPs, including mapping;

39 - Assisted in preparation of technical and progress reports.

40

41 **Teaching Assistant, University of Alberta, 2004, 2005.**

42 - Instructed classes of 15-20 senior undergraduate students in a field/laboratory setting;

43 - Taught students silviculture principles, laboratory techniques, application of forestry/growth and  
44 yield models;

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**SKILLS**

**Computers/Field Equipment – Hardware**

- Assembling/set-up computer components
- Set-up and programming of data loggers and corresponding sensors
- Set-up and use of GPS units (Leica, Trimble, Garmin), and PDAs for electronic data collection
- Laser measuring tools – Laser transit, Vertex, Hypsometer
- Light measuring equipment – LAI 2000, Hemispherical Photography
- Excellent understanding of high-tech equipment

**Computers/Field Equipment – Software**

- DOS, Microsoft Windows, Mac OS for PC and Pocket PCs (PDAs)
- Microsoft Office Packages and most of Microsoft Windows based software (proficient in MS Excel)
- Statistical software – SAS, SPSS, MATLAB
- Mapping software – Garmin Map Source, ESRI Arc GIS
- Graphic software – Macromedia Fireworks, Adobe Photoshop
- Forest models – MGM (University of Alberta), TIPSYP (BCFS), SORTIE
- TASS (BCFS), VDYP (BCTS), Prognosis BC (USFS).

**Field Reconnaissance/Activities and Mapping**

- Excellent field orientation skills and mapping abilities
- Good field reconnaissance and vegetation classification per layers
- Developing excellent engineering skills (road and block layout, creek assessment, site and logging plans, mapping)
- Excellent silviculture survey skills – collecting and compiling data

**Languages**

- English , French

**ADDITIONAL TRAINING AND CERTIFICATIONS**

- Canada Safety Council defensive driving certificate
- Canada Safety Council ATV rider certificate
- First Aid Level 1 and Transportation Endorsement Certificates
- S-100 Basic Fire Suppression and Safety
- Bear Aware UNBC
- Certified Danger Tree Assessor (DTA)
- Certified MPB surveyor

**EXTRACURRICULAR ACTIVITIES**

- Web design – using Macromedia Dreamweaver and MS Front Page combined with advanced photo editing in Fireworks and Photoshop

**CONTRIBUTIONS TO RESEARCH AND DEVELOPMENT**

**ACADEMIC AWARDS**

# APPENDIX 4: ADEQUATE COURSE OUTLINE SAMPLE

Course Outline



**School of Construction and the Environment**  
**Program: Diploma of Technology in Sustainable Resource Management**

**Course Number: SRMT 3820**  
**Course Name: Silviculture**

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<b>Prerequisites:</b>		<b>Course is a prerequisite for:</b>	
SRMT 2100	Ecosystem Classification	SRMT 4850	Urban and Interface Silviculture
SRMT 2110	Natural Resource Measurements 2	SRMT 4810	Applied Silviculture

---

<b>Hours/Week:</b>	5	<b>Lecture:</b>	1	<b>Lab:</b>	4	<b>Total Hours:</b>	75	<b>Level:</b>	Diploma
						<b>Total Weeks:</b>	15	<b>Credits:</b>	5

---

### Course Description:

Silviculture is defined as the theory and practice of controlling the establishment, composition, growth, and quality of forest stands to achieve the objectives of management. Common management objectives for stands (and forests) include timber production, pleasing appearance, conservation of biological diversity, wildlife habitat, recreational opportunities and production of high-quality potable water.

SRMT 3820 Silviculture introduces pertinent silviculture theory, practices and procedures with a focus on British Columbia.

The principal topics covered are:

- site assessment based upon BC's Biogeoclimatic Ecosystem Classification System;
- dynamics of zonal vegetation communities of B.C.
- stand structure and biodiversity;
- silvics (important biological characteristics) of commercially important tree species;
- characteristics of commonly applied silvicultural systems - desired stand structure, harvesting, crop regeneration and tending;
- evaluation and management of soils to avoid reduction in productivity or undesirable off-site effects;
- regulatory requirements for Basic Silviculture in British Columbia - the Forest Stewardship Plan, Site Plan and Stocking Standards
- techniques for establishing desired species of vegetation on forest land in B.C. Students will be able to describe critical elements for successful establishment such as site receptivity, treatment timing, care of living material, planting site selection, planting technique and site monitoring.

Silviculture will be delivered in the classroom and in the field.

---

## Course Learning Outcomes

At the end of this course the student will be able to:

1. Identify the pertinent Biogeoclimatic Zone, Subzone, Site Unit, Site Association, and Site Series in the BC Ministry of Forests Biogeoclimatic Ecosystem Classification system for an area of forest land.
2. Predict successional pathways and stand dynamics.
3. Estimate the Site Index for alternative crop species for an area of forest land.
4. Identify pertinent soil characteristics and sensitivities and recommend appropriate soil management practices for an area of forest land.
5. Identify the characteristics of commonly applied silvicultural systems and recommend appropriate silvicultural systems to achieve given management objectives for a specific site and stand.
6. Recommend appropriate crop tree species for a specific silvicultural system on an area of forest land.
7. Identify silvical characteristics of commercial tree species pertinent to the selection of silvicultural system and regeneration method.
8. Determine available seedlots and their genetic worth.
9. Identify Basic Silviculture Stocking Standards and Soil Conservation Standards in a Site Plan.
10. Discuss the impact of site or timing on achieving regeneration objectives.
11. Demonstrate correct spot selection and planting technique.
12. Assess planting quality using the BC Ministry of Forests Planting Quality Inspection System.
13. Assess worker and crew productivity.
14. Demonstrate how to avoid injury during planting.
15. Identify various seedling stocktypes.
16. Describe how seed and seedlings are best stored and handled.

---

## Evaluation

Final exam written	25%	<b>Comments:</b>
Quizzes	10%	
Assignments	60%	
Instructor Assessment	05%	
<b>Total</b>	<b>100 %</b>	

---

## Text(s) and Equipment:

### Required:

*A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region.* R.N. Green and K. Klinka. 1994. BC Ministry of Forests. Land Management Handbook Number 28.

*Plants of Coastal British Columbia.* J. Pojar and A. MacKinnon. 1994.

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## Course Record:

Developed by:	<u>Norm Caldicott / Steve Finn</u>	Date:	<u>January 2011</u>
Current version:	<u>Norman Caldicott</u>	Date:	<u>August 2013</u>

<b>Date / time/ location</b>	<b>Topic</b>	<b>Assignments</b>	<b>Due date / marks</b>
Sept 5 09:30 – 11:00 SE4 106	<b>Introduction</b>		
Sept 12 12:00 – 17:00 SW1 3170	<b>Tree anatomy / biology</b> <ul style="list-style-type: none"> <li>names of parts</li> <li>juvenile wood</li> <li>mature wood</li> <li>stem form</li> <li>root form</li> <li>meristems</li> <li>growth cycles</li> <li>frost hardiness</li> <li>drought tolerance</li> <li>dormancy</li> <li>quiescence</li> </ul>	in-class exercises	
Sept 19 12:00 – 17:00 SW1 3170	<b>Transplanting seedlings</b> <ul style="list-style-type: none"> <li>selecting time of planting and stocktype</li> <li>ordering planting stock</li> <li>stock quality assessment</li> <li>stock storage and handling to maintain quality</li> <li>seedling cost</li> </ul>	in-class exercises assignment	08:30 Wed Oct 2 5%
Sept 23 08:30 – 16:30 Bear Creek Park	<b>PNW-ISA ATC 2013 – Rooted in the Future</b> <a href="http://pnwisa.org/events/category/pnw-isa-conferences/upcoming/">http://pnwisa.org/events/category/pnw-isa-conferences/upcoming/</a>		
Sept 26 12:00 – 16:00 SW1 2070	<b>SRMT 4650 Forest Health</b>		
Oct 3 12:00 – 17:00 SW1 3170	<b>Site Index</b> <ul style="list-style-type: none"> <li>what is it</li> <li>how is it measured</li> </ul> <b>Genetic selection and control</b> <ul style="list-style-type: none"> <li>Genetic improvement of BC conifers</li> <li>Using SPAR</li> </ul>	in-class exercises assignment	08:30 Wed Oct 9 10%
Oct 10 12:00 – 17:00 SW1 3170	<b>Silvics</b> <ul style="list-style-type: none"> <li>climatic, orographic and edatopic elements</li> <li>tolerance: shade, frost, drought, flooding</li> <li>compensation point</li> <li>spatial requirements</li> <li>growth rate</li> <li>natural range</li> <li>BEC zones</li> <li>disease and damage susceptibility</li> <li>reproduction</li> <li>propagation</li> <li>value</li> </ul>	<b>assignment:</b> prepare a silvicultural monograph for a BC forest tree species of your choice  <b>read:</b> J://SRMT/3820/Site and Stand Assessment/ 1. Site Assessment/Intro to Site Assessment 2. /Soil Sensitivities/ Soil Sensitivities	08:30 Wed Oct 23 10%
week Oct 15 - 18	<b>Interior Field Trip</b>	plant collection	5%
Oct 24 09:30 – 16:30 WL0007	Note class commences and ends at WL0007 <b>Review</b> <b>Quiz</b> <b>Site Assessment</b> <ul style="list-style-type: none"> <li>identify the pertinent Biogeoclimatic Zone, Subzone, Site Unit, Site Association, and Site Series in BEC;</li> <li>identify pertinent soil characteristics and sensitivities</li> </ul>	<b>2 person teams</b> <b>assignment:</b> <ul style="list-style-type: none"> <li>describe the site, soil, vegetation and BEC classification</li> </ul> <b>read:</b> J://SRMT/3820/Site and Stand Assessment/ 1. Stand Assessment/Stand Assessment Lab 2. Stand Dynamics/ Successional Pathways and Stand Dynamics	10% 08:30 Wed Nov 13 5% (this part)

Oct 31 09:30 – 16:30 WL0007	Note class commences and ends at WL0007 <b>Stand Structure / dynamics</b> <ul style="list-style-type: none"> <li>• structure / structural stages</li> <li>• predict successional pathways and stand dynamics</li> </ul> <b>Site Index</b> <ul style="list-style-type: none"> <li>• estimate the Site Index for alternative crop species</li> </ul> <b>Soil Disturbance</b> <ul style="list-style-type: none"> <li>• recommend appropriate soil management practices</li> </ul>	<b>2 person teams assignment:</b> <ul style="list-style-type: none"> <li>• describe stand structure and dynamics</li> <li>• estimate site index for potential crop species</li> <li>• recommend soil management practices</li> </ul>	(note same assignment as previous) 08:30 Wed Nov 13 5% (this part)
Nov 7 12:00 – 17:00 SW1 3170 and computer lab	<b>Stand Models</b> <ul style="list-style-type: none"> <li>• TIPSY</li> <li>• gpp</li> <li>• npp</li> <li>• utilization limits</li> <li>• tree volume</li> <li>• stand volume</li> <li>• cai</li> <li>• mai</li> <li>• average tree diameter</li> <li>• zone for maximizing volume production</li> </ul>	<b>2 person teams assignment:</b> model and evaluate various species / stand combinations for the WL0007 site	(note same assignment as previous) 08:30 Wed Nov 13 5% (this part)
Nov 14 ? SW1 3170	<b>Regulatory requirements for silviculture in B.C.'s working forest</b> <ul style="list-style-type: none"> <li>• Site Plan</li> <li>• Basic Silviculture Stocking Standards</li> <li>• Soil Conservation Standards</li> </ul>	exercises	
Nov 21 12:00 – 17:00 SW1 3170	<b>Silvicultural Systems</b>	exercises	
Nov 28 12:00 – 17:00 SW1 3170	<b>Silvicultural Systems</b> <b>Crop tree species selection</b> <b>Matching species, site, management objectives and silvicultural system</b> <ul style="list-style-type: none"> <li>• prepare a 3 – 6 page recommendation for species and silvicultural system for your WL site and a given set of management objectives</li> <li>• format your recommendation as a Site Plan</li> </ul>	exercises <b>2 person teams assignment:</b>	15%
Dec 5 12:00 – 17:00 SW1 3170	<b>Matching species, site, management objectives and silvicultural system</b>  <b>Review</b>	student team presentations and submissions	
Week of Dec 9	Written final		25%

# APPENDIX 5: INADEQUATE COURSE OUTLINE SAMPLE

## Renewable Resources Technology

<b>Length of Course:</b>	<b>2 Years</b>
<b>Admission Requirements:</b>	<b>Complete Grade XII, Saskatchewan or equivalent, including Algebra and Geometry-Trigonometry. A preference is given to applicants who have Grade XII Biology.</b>
<b>Program Head:</b>	<b>L. Royer</b>

### Employment Opportunities

The resource technologist will be able to fill the vacancy between untrained personnel and the policy making professional. The graduates of this course are prepared to occupy positions in wildlife, forestry and fisheries as technicians or as park wardens or as conservation officers.

### Field Trips and Camps

Field Trips are a necessary part of the program together with two field camps at Candle Lake during the second year. A one-week surveying camp is held at the end of the second semester. Participation on these trips and camps is compulsory.

## Renewable Resources Course Outline

	Course No.	Hours per Week	
		Lecture	Lab
<b>First Semester</b>			
Technical Writing .....	CA 1632	3	—
Mathematics: Review .....	MA 1321	2	—
Statistics I .....	MA 1523	3	—
Surveying .....	SU 1123	1	2
Office Management .....	BE 1721	1	—
Typing .....	BE 1521	1	—
Forest Fire Control .....	FC 1192	2	—
Forestry: Taxonomy & Dendrology .....	FT 1192	3	—
Fisheries .....	FI 1194	1	3
Wildlife Zoology .....	WZ 1194	1	3
Parks & Recreation .....	RR 1194	4	—
Supervisory Techniques .....	SS 1672	2	—
Recreation Skills .....	RS 1101	—	2
Credits — 30			
Hours — 35			
<b>Second Semester</b>			
Oral Communications .....	CA 2221	3	—
Statistics II .....	MA 2533	3	—
Graphics .....	GR 2123	—	3
Office Management .....	BE 2721	2	—
Typing .....	BE 2521	1	—
Fire & Small Motors .....	FS 2192	1	2
Forestry: Mensuration & Management .....	FM 2192	2	—
Fisheries .....	FI 2194	1	3
Wildlife Management .....	WM 2194	1	3
Parks: Planning & Design I .....	PD 2193	2	1
Soils Science .....	SS 2192	2	—
Field Safety Skills .....	SF 2191	1	—
Recreation Skills .....	RS 2101	—	2
Credits — 28			
Hours — 33			

### Third Semester

Law: Basic Structure .....	LE 3192	2	1
Photogrammetry .....	PH 3192	1	2
Forestry: Plant Ecology & Silviculture .....	FS 3194	3	2
Fisheries .....	FI 3194	2	3
Wildlife Habitat .....	WH 3194	2	3
Parks: Planning & Design II .....	PD 3194	2	4
Simulator: Project .....	SP 3191	—	3
Report .....	SR 3191	—	—
Field Safety Skills (Camp) .....	SF 3191	—	—
Credits — 23			
Hours — 30			

### Fourth Semester

Law: Evidence & Procedures .....	LE 4192	4	—
Photogrammetry .....	PH 4192	1	2
Forestry: Enemies & Silviculture .....	FE 4194	5	—
Fisheries .....	FI 4194	2	3
Wildlife Techniques .....	WT 4194	2	3
Parks: Operation & Maintenance .....	PO 4194	2	3
Simulator: Project .....	SP 4192	—	3
Anthropology .....	AN 4191	2	—
Project Report .....	TR 4193	—	—
Field Camp .....			
Credits — 26			
Hours — 32			

## Renewable Resources Course Description

### CA 1632 Written Technical Communication

This course in technical writing provides instruction in the basic skills of business correspondence and the procedures and techniques of report writing, demonstrated through the practical application of theory to a written report.

### MA 1312 Mathematics: Review

A concentrated review of the mathematical concepts used in surveying. Topics covered include geometrical figures, accuracy and precision, use of trigonometrical functions in the solutions of triangles, logarithms.

### MA 1523 Statistics I

An introduction to statistical concepts and techniques including elementary probability, (discrete and continuous) random variables and their distributions, frequency distributions, measures of location and variability, sampling theory, point and interval estimation, testing hypotheses.

### SU 1123 Surveying

This course is developed for the surveying requirements encountered in the normal demands of this profession, viz. fisheries, wildlife, parks and forestry.

Students are trained in the use of surveying instruments which are most frequently used in this profession, namely: pacing, compass, hand level and transit. Other basic equipment is also included.

Students attaining proficiency in this course will be knowledgeable of practical survey procedures and will be competent to conduct survey projects from which simple road designs, dams, canals and various areas are calculated; boundaries defined, topographic maps drawn and land locations defined and located by a thorough knowledge of the "Land Survey System".



**BE 1271 & BE 2721 Office Management**

This course is an introduction to office management. Emphasis is on the basics of a bookkeeping system, designing efficient systems, filing organization and time planning and budgeting for non-profit organizations.

**BE 1521 & BE 2521 Typing**

To achieve a skill of typing a minimum of 30 words per minute and ability to set up and type correspondence and memoranda.

**FC 1192 Forest Fire Control**

This course is intended to provide an understanding of forest fire, its effects involving presuppression, suppression and control. The application of fire control necessarily draws on many areas of knowledge. These include meteorology, equipment engineering, services of supply, communications, transportation, aircraft operation, training, suppression techniques and administration. The theoretical aspects of the forest fire control course is presented to acquaint the students with the terminology and a basic understanding of techniques. A fire school, which is part of the fall field camp during the third semester, supplements the theory with practical application in various phases of suppression work.

**FT 1192 Forestry: Taxonomy & Dendrology**

A basic study of tree identification with associated information on their position in the plant kingdom. The course will orient the student to the forest environment and its relation to the other resource fields. The species studied are indigenous to Canada, but particular attention is given to the native species of the prairie provinces, their phenology, habitat, associated species, destructive agents and taxonomy. The student is required to prepare identification keys of various tree species from a laboratory study of herbarium specimens.

**FI 1194 Fisheries**

Introduction to fisheries, including World fisheries; Canadian freshwater fisheries; Saskatchewan fisheries; the basis of fisheries research, management, and methods of harvesting. Limnology, including pure research; applied research; morphometry and origin of lakes and rivers; physical and chemical properties of water.

**WZ 1194 Wildlife Zoology**

General principles of wild life management and its integration with other disciplines. Basic taxonomy of the animal kingdom from phyla to families with emphasis on those forms of birds and mammals which are common to Canada. Anatomy including external, skeletal, digestive and reproductive morphology and digestive and reproductive physiology of game birds. Laboratory exercises include use and operation of the microscope, bird and mammal identification and bird anatomy.

**RR 1194 Parks & Recreation**

Introduction to parks and outdoor recreation, with main emphasis on the role of numerous agencies in the field of outdoor reation. Detailed coverage will be directed to the history and philosophy of the provincial and national parks systems with particular stress placed on the current parks policy. A number of Provincial Park systems will be presented with emphasis placed on the Saskatchewan system, in order to bring into perspective the concept of resource and/or facility oriented park developments.

**SS 1672 Supervisory Techniques**

For students of Technology programs, to prepare them to enter into a supervisory position by the study of the nature of management and leadership; understanding of motivation; individual differences; personality; communications; handling complaints; grievances and value of listening.

**RS 1101 & RS 2101 Recreation Skills**

Water Safety and Self-defense. This course introduces students to self-defense and water safety. Content in self-defense; human search, legal aspects, formal search, physical control, physical arrest, hand guns and use, legislation, self-defense and philosophy of self-defense. Content in water safety; small craft safety, i.e. canoes; personal safety skills, i.e. reaching

assists, ice rescue, life jackets and personal floatation devices; snorkel diving; theory sessions, i.e. drowning, hypothermia.

#### **CA 2221 Oral Communications**

This course emphasizes personal responsibility for communication and provides instruction in the skill of oral presentations leading to increased confidence gained through participation in a series of oral exercises.

#### **MA 2533 Statistics II**

Linear regression and correlation analysis; a non-theoretical study of the methods of analysis of variance including one-way classification and two-way classification with several observations per cell, multiple comparisons, completely randomized and randomized block designs, and Latin squares; introduction to the use of non-parametric tests. A programming language and packaged programs will be demonstrated and used by the students.

#### **GR 2123 Graphics**

Students use field survey data compiled in the first semester for the purpose of drawing topographic maps, profiles, cross sections, and other related topographic material. Map reading and a knowledge and use of the land survey system are major areas of instruction. Students are shown the relationship and correlation between field surveys and notes to the resultant drafting product. Emphasis is placed on simulating actual office procedures and drafting practices.

#### **FS 2192 Fire & Small Motors**

The course consists of instructional material and laboratory exercises to provide a basic understanding of the small gasoline engine and its application. Included are power equipment utilized in the resources field such as power water pumps, chain saws, outboard motors, power augers, snowmobiles, and others. Course material covers the topics of safety, preparation for use, starting and operation; immediate services, periodic inspection and adjustment; lubrication, trouble shooting, minor repair; preparation for storage and transport.

#### **FM 2192 Forestry: Mensuration & Management**

An introductory course to the measurement of standing trees, their form and volume. Measurements of log products are covered in a study of the scaling practices used in Saskatchewan. Stand measurements are enumerated along with the various techniques of forest inventory. In addition, an introduction is given to the theoretical constructs of forest management, i.e., the growth and yield of timber for continuous production.

#### **FI 2194 Fisheries**

Introduction to various biotic communities in aquatic ecosystems; collection, identification and analysis of plankton and bottom fauna; life histories, identification and control of fish parasites and other aquatic nuisances. Freshwater ecology including succession, food webs and life histories of important Canadian freshwater fish. Ichthyology including anatomy, distribution, behaviour and systematics of important Canadian commercial, sport and forage species.

#### **WM 2194 Wildlife Management**

Mammalian anatomy and physiology are discussed with emphasis on differences between birds and mammals. Basic ecological principles and the ecological approach to field studies; population dynamics and predator-prey relationships are discussed. Basic principles and practices of wildlife management and ecological implications of management upon game birds and mammals are emphasized; techniques of vegetation analysis and animal populations are introduced. Laboratory exercises include preparations of bird and mammal study skins, mammalian anatomy and waterfowl wing identification.

#### **PD 2193 Parks: Planning & Design I**

Introduction to general planning of park systems with emphasis on the planning and design of individual recreational areas. Land classification and zoning systems are introduced with particular emphasis placed on recreational land use and its relationship to other competitive resource uses. Coverage is given to the value of outdoor education in relationship to recreation, with emphasis placed on nature interpretation and the planning and design of nature trails. A design of a small camp and picnic site is included as a laboratory exercise.

# GLOSSARY

**Accreditation:** The process of education assurance through which formal recognition of the quality and necessary curriculum content of a forestry program is conferred by a regulatory body. In British Columbia, the ABCFP is the responsible body to determine if the program delivers the academic requirements for entrance to the profession. A graduate from an accredited forestry program is eligible for enrolment upon graduation and may take the professional examination once the prescribed articling (practical experience) requirements have been met for certification.

**Academic Standards:** Entrance standards agreed to for membership in one or more membership categories. The Foresters Act requires that these entrance standards are for any person wishing to practice professional forestry. The entrance standards include academic standards, as well as work experience and exam requirements.

**Allied programs:** Forestry programs are defined as forestry by content rather than by title. Forestry programs will meet the ABCFP requirements for The Core Foundational Field and Technical Skills as well as the Communication Level Foundational Knowledge Related to the Profession of Forestry. They will have Intermediate or advanced Applied Field Technical Skills in two or more practice areas. Forestry programs are called, or have been called:

- Sustainable Resource Management
- Forest Technology
- Forest Resource Technology
- Natural Resources and Environmental Technology
- Renewable Resources

Allied programs are programs recognized by CTAB and fall under the Renewable Resources Discipline. Like forestry they may have names different names but will be similar in content and will share common CTAB accreditation requirements. The program will likely have many of The Core Foundational Field and Technical Skills but will require gap filling for the Communication Level Foundational Knowledge Related to the Profession of Forestry. The allied programs will have Intermediate or advanced Applied Field Technical Skills in two or more allied areas of practice.

- Resource Planning and Management
- Geographic Information Systems
- Wildlife Resource Management
- Fisheries/Aquatic Environmental Management
- Range Management
- Park Management
- Recreational Land Management
- Aboriginal Resource Management
- Environmental Law
- Forest Hydrology

**Articling period:** The period of time applicants must spend as an enrolled member completing academic/core competency requirements, if any, and gaining relevant work and professional experience under the guidance of a registered member before they can write a registration exam and apply to become a registered member.

**Allied Science Trainee Forest Technician (ASTFT):** Trainee Forest Technologist who has a recognized post-secondary diploma or equivalent (as defined) that does not meet all the core competency requirements for entry as a Trainee Forest Technologist. ASTFTs will be required to complete a competency assessment during the articling period and will be required to bridge any outstanding competencies during the articling period.

**Certification:** The authoritative endorsement by a regulatory body that a person has attained occupational efficiency.

**Competency:** The evidence of equivalency competency in a subject may be established by the applicant's detailed work experience and participation in the preparation of papers, articles, presentations, etc.

**Core Competency Standards:** An essential element for certification. The standards describe the principle, relevant components, demonstrable competency requirements, and performance indicators

**Guarantor:** A registered forest professional who is able to confirm the applicant's competency and is prepared to provide professional endorsement and confirmation of the self-assessment.

**Registered Forest Technologist:** One of the Registered Forest Technologist (RFT) certification standards is that the individual has education and training and is able to practice at the technologist level. The RFT will have a diploma of technology from a two or three year program with 2000 contact hours. The RFT may carry out independent Professional Practice as defined by the Foresters Act and the ABCFP RFT Scope of Practice.

**Sponsor:** A registered forest professional who, upon signing an articling agreement with applicant /enrolled member, assumes responsibility for overseeing the growth and development of that enrolled member towards registration and the work that the enrolled member does during the articling period.