



# COLLEGE OF APPLIED BIOLOGY

## **College of Applied Biologists (CAB) Professional Designations: Applied Biology Technician (ABT), Applied Biology Technician (ABT) in Training, Registered Professional Biologist (RPBio), Biologist in Training (BIT)**

### **About the College of Applied Biologists Professional Designations**

The College of Applied Biologists (CAB) is the regulatory body for applied biology professionals in British Columbia who work with and in the natural resource sector. The College has been granted authority from the province of BC to register applied biology professionals, grant licenses and protected titles, and regulate its registrants under the *Professional Governance Act*.

CAB establishes and maintains a continuing competency program to promote high practice standards amongst registrants. Registrants of CAB are professionals who meet rigorous standards for designation and entry into the College. They apply their expertise in biology across various fields to help manage and protect natural resources. Registrants who have met all of the requirements and high standards for entry into the College are given the right to the designation of:

- ABT, Applied Biology Technician;
- RBTech, Registered Biology Technologist; or
- RPBio, Registered Professional Biologist.

The College has standardized requirements for each registrant category that are detailed in the [Credentialing Standard](#) that can be downloaded [here](#). It is strongly recommended that you review this information before submitting an application. It contains all the important information and details that include, but not limited to, application requirements for each registration category such as education/training, work experience, professional work products, references, mandatory training, checklists, and more.

Graduates from both the RNS Certificate and Diploma programs qualify to apply for the ABT designation. The RNS Diploma covers many of the courses required for the RBTech and RPBio designations; however, additional courses would need to be taken in various areas. This guide will focus on **how to apply to the ABT and RPBio categories only, and the associated in Training categories of ABT in Training and Biologist in Training (BIT)**. For information on RBTech and further details on all designation categories, visit the CAB website at [cab-bc.org](http://cab-bc.org).

The ABT In Training and BIT categories are precursors for ABT and RPBio, respectively. In Training registrants are those who have met all of the College's education requirements and are working towards fulfilling the work experience requirements that lead to becoming an ABT or RPBio. One of the benefits to being an in-Training registrant is that you would have already been assessed for the academic requirements and completed one component of the application process, which could cut down on the time frame it takes for assessment and approval to becoming a registered practitioner. Therefore, when you have an "in Training" designation and are ready to apply for the "practicing" designation category, you would just need to demonstrate the other requirements of work experience, professional competencies, and references.

## How to Apply

One of the tools that the College offers is an online [Applicant Self-Assessment Tool \(ASAT\)](#) that provides information on all of the registrant categories, requirements for each category, and an optional assessment report that can be downloaded for your reference. The ASAT is not a part of the registration process, but it can help you decide which registrant category may be best aligned with your qualifications.

Registration with the College requires the following:

1. A completed application that meets the College's requirements for the registrant category applied, i.e., ABT, ABT in Training, RPBio, BIT
2. If approved the applicant must meet the College's requirements for registration:
  - a. Completion of all mandatory training; and
  - b. Paying all applicable fees (e.g., annual dues and seal)

The entire application, assessment, and registration process is completed online through the College's portal: <https://portal.cab-bc.org/applicants/start>.

### ***Application Requirements for Applied Biology Technician (ABT) & ABT in Training***

There are three streams of entry for registration in the ABT category – see Figure 1. Streams 1 and 2 require an education assessment and a minimum of one year of applied biology work experience within the last 10 years. Applicants can only apply through Stream 1 if they have completed/graduated from a CAB accredited program during the current timeframe of the program's accreditation. CAB accredited programs for Stream 1 entry are listed [here](#); all other non-accredited programs would fall under Stream 2 entry and course descriptions will need to be provided. Stream 3 requires a minimum of three years of work experience in applied biology.

The RNS Diploma and Certificate programs have been accredited by the College of Applied Biology and both programs meet the academic requirements for entry as an ABT and ABT in Training in Stream 1. ABT applicants will need to meet the other requirements set out in the [Credentialing Standard](#), including work experience in applied biology, competencies, and references. Table 1 provides a summary of the ABT and ABT in Training application requirements.

Figure 1. Streams of entrance for the Applied Biology Technician registrant category (CAB, 2023)

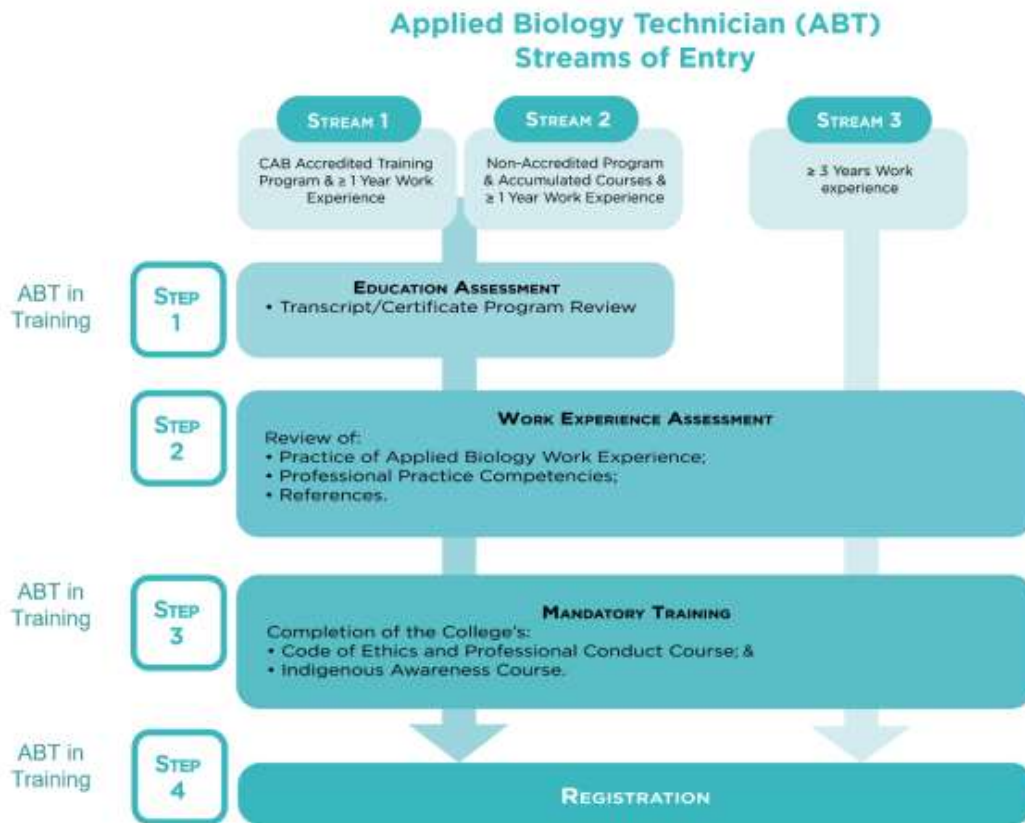


Table 1. Summary of the ABT and ABT in Training application requirements (CAB, 2023)

Requirements	ABT	ABT in Training	ABT
	Streams 1 & 2		Stream 3
<b>Academics</b>	Certificate or a minimum of 200 hours or 5 instructional weeks of course work or a course module that includes the following required: <ul style="list-style-type: none"> <li>• Natural Resource Survey Skills</li> <li>• Applied Biology Identification Skills</li> <li>• Field Navigation</li> </ul>		3 years on the job training
<b>Work Experience</b>	≥ 1 year of applied biology work experience ( <a href="#">Applied Biologists Regulation</a> ) within the last 10.	Not Applicable	≥ 3 years of applied biology work experience ( <a href="#">Applied Biologists Regulation</a> ) within the last 10.
<b>Professional Practice Competencies</b>	Demonstrate that you meet all of the College's Professional Practice Competencies.		Demonstrate that you meet all of the College's Professional Practice Competencies.
<b>References</b>	1		2
<b>Complete the College's Mandatory Training Courses</b>	<ul style="list-style-type: none"> <li>• Code of Ethics &amp; Professional Conduct; &amp;</li> <li>• Indigenous Awareness</li> </ul>		

## 1. Academics

Both the RNS Diploma and Certificate programs fulfill the academic requirements for ABT and ABT in Training. The following RNS required core courses fulfill the ABT/ABT in Training Streams 1 & 2 Academic requirements:

ABT/ABT in Training Academic Requirements	RNS Course Equivalent
Certificate or a minimum of 200 hours or 5 instructional weeks of course work or a course module that includes the following required: <ul style="list-style-type: none"> <li>• Natural Resource Survey Skills</li> <li>• Applied Biology Identification Skills</li> <li>• Field Navigation</li> </ul>	RNS required core courses including: <ul style="list-style-type: none"> <li>• ER312A Field Study in ER 1</li> <li>• ER332 Selection &amp; Propagation of Native Plants</li> <li>• ER312B Field Study in ER II</li> </ul>

Official transcripts, certificate, or diploma will need to be submitted to demonstrate successful completion of academic training in the RNS Diploma or Certificate program.

## 2. Work Experience

ABT Streams 1 and 2 applicants must demonstrate a minimum of one year of applied biology work experience within the last 10 years, **post-graduation** and prior to application. Stream 3 requires a minimum of three years of work experience (on-the-job training) in applied biology within the last 10 years prior to application.

ABT in Training applicants do not need to meet this requirement until they are ready to apply for the “practicing” ABT designation category.

Work experience must align with the definition of the “practice of applied biology” as defined in the [Applied Biologists Regulation](#) as the provision of:

- a) advice or services that (i) are based on biological sciences, and (ii) relate to aquatic or terrestrial ecosystems or the living organisms, habitats or processes of those ecosystems, or
- b) advice or services that are ancillary to those described in paragraph (a).

Applicants can use volunteer experience, as long as it meets the practice of applied biology as defined in the [Applied Biologists Regulation](#) towards meeting the work experience requirement.

### **3. Professional Practice Competencies**

ABT applicants of all three streams must demonstrate how they meet one of the three key indicators of each of the College’s seven [Professional Practice Competencies](#). ABTs need to have at least one example of a key indicator in each of the following seven Professional Practice Competencies (Figure 2) that you can explain in detail how you meet a key indicator through descriptions of your activities, knowledge, experience etc., and that can be verified by a reference.

Figure 2. The College uses the following key indicators (KIs) in each Professional Practice category to assess and verify that the minimum competency level requirement has been met with at least one key indicator in each category.

#### Records/Data Management & Informatics



1. Demonstrate knowledge of records management and information.
2. Implement policies and protocols relating to records management and informatics in their practice.
3. Respect for confidentiality in their practice.

#### Professional Accountability



1. Demonstrate an awareness of scope of practice and limitations.
2. Take responsibility for their work and work of others' (if applicable).
3. Exercise skills in applied biology and other professional skills as required for work to be undertaken.

#### Communication



1. Communicate written and oral information in a clear, concise, and comprehensible manner.
2. Communicate and acknowledge the value of alternative views and hypotheses.
3. Demonstrate the ability to communicate effectively with specialist and non-specialist audiences, colleagues, clients and others.

#### Scientific knowledge & Concepts



1. Demonstrate knowledge of scientific information and concepts.
2. Incorporate relevant scientific knowledge and concepts in their practice.
3. Use knowledge and scientific understanding to improve the application of existing and emerging scientific concepts, knowledge or technology in their practice.

#### Laws, regulations & policy



1. Incorporate regulatory and policy requirements in their practice.
2. Implement regulatory and policy requirements in their practice.
3. Demonstrate knowledge of: a) regulatory and policy requirements as a regulated professional; b) Demonstrate knowledge relevant to their practice.

#### Standards & Practices



1. Demonstrate knowledge of standards and practices relevant to their area of practice.
2. Incorporate standards and practices in their practice.
3. Implement standards and practices in their practice.

#### Project &/or Work product Management



1. Provide advice, options /solutions, requirements.
2. Demonstrate skills in evaluation of and in drawing conclusions.
3. Demonstrate skills in the scoping, planning and implementing of projects/assignments.

You can find and download [more information and details](#) on each of the seven Professional Practice Competencies.

#### 4. References

For ABT Stream 1 and 2 applicants, only one reference will need to be provided. For ABT Stream 3 applicants, two references will need to be provided. References do not need to be provided for ABT in Training applicants.

References will be asked to:

- a) Confirm the applicant demonstrates the Professional Practice competencies defined by the College;
- b) Be knowledgeable of the applicant's ability and work as an applied biology professional (i.e., someone the applicant has worked with); and

- c) Not be related to the applicant unless the relative is the supervising professional.

The College recognizes the variety of work experience and employer(s) an applicant may have; therefore, it is not required that references be registrants of the College and be from a different employer(s). References must be from people with whom the applicant has worked with. An email will be sent to the reference (if applicable) from the online application, where they will receive a link directly to the reference section in the applicant's application.

### **5. Mandatory Training**

All applicants who have been approved are required to complete the College's mandatory training courses in Code of Ethics and Professional Conduct, and Indigenous Awareness. The mandatory training courses will ensure that all applied biology professionals have a baseline level of training, and is offered through the College's training portal.

### ***Application Requirements for Registered Professional Biologist (RPBio) & Biologist in Training (BIT)***

There are four streams of entry for registration in the RPBio category – see Figure 2. Streams 1 and 2 require a Bachelor's or Master's degree with 25 science courses, including 13 in biology, and several required core courses in a variety of areas that are detailed in Table 2. Additionally, a minimum of three years of work experience in applied biology within the last 10 years is required. Stream 3 requires a Bachelor's or Master's degree with 25 science courses, 13 in biology, and at least 15 years of work experience in applied biology. For Stream 4, candidates must hold a Master of Science (MSc) or a Doctor of Philosophy (PhD) degree in applied biology, with 25 science courses, 13 in biology, and a minimum of 13 years of applied biology work experience for MSc applicants, or minimum of 11 years of applied biology work experience for PhD applicants, respectively.



Figure 2. Streams of entrance for the Registered Professional Biologist registrant category (CAB, 2023)

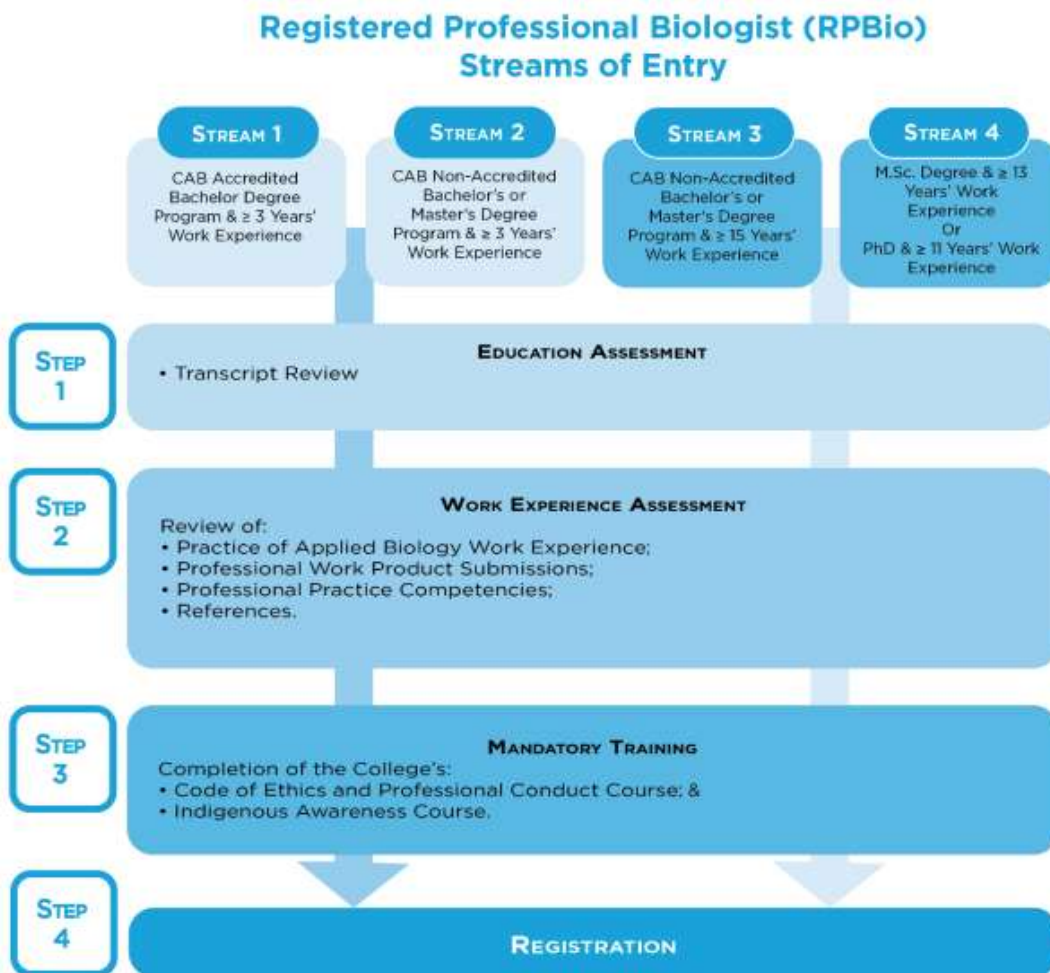




Table 2. Summary of the RPBio and BIT application requirements (CAB, 2023)

Requirements	RPBio	Biologist in Training (BIT)	RPBio	
	Streams 1 & 2		Stream 3	Stream 4
<b>Academics</b>	<ul style="list-style-type: none"> <li>Bachelor's or Master's Degree;</li> <li>25 Science Courses, 13 in biology.</li> <li>Core courses in the following: 1<sup>st</sup> year or higher                             <ul style="list-style-type: none"> <li>Communications</li> <li>Chemistry</li> <li>Numeracy (Mathematics/Statistics)</li> </ul> </li> <li>2<sup>nd</sup> year or higher                             <ul style="list-style-type: none"> <li>Applied Biology</li> <li>Ecology</li> <li>Numeracy must be Statistics</li> </ul> </li> <li>3 of the following 2<sup>nd</sup> year or higher courses:                             <ul style="list-style-type: none"> <li>Cell Biology</li> <li>Genetics</li> <li>Physiology</li> <li>Systematics</li> <li>Evolution</li> </ul> </li> </ul>		Bachelor's or Master's Degree with 25 Science Courses, 13 in biology.	Master's of Science degree/PhD in applied biology, 25 Science Courses & 13 in biology.
<b>Work Experience</b> <a href="#">Applied Biologists Regulation</a>	≥ 3 years of applied biology work experience within the last 10	Not applicable	≥ 15 years of applied biology work experience	<ul style="list-style-type: none"> <li>Master's of Science degree in applied biology plus ≥ 13 years of applied biology work experience</li> <li>PhD in applied biology plus ≥ 11 years of applied biology work experience</li> </ul>
<b>Professional Practice Competencies</b> Refer to Section	Demonstrate that you meet all of the College's Professional Practice Competencies.		Demonstrate that you meet all of the College's Professional Practice Competencies.	
<b>Professional Work Products (PWPs)</b>	2 to 4 PWPs that meets the criteria below		2 to 4 PWPs that meets the criteria below	
<b>References</b>	3		3	3
<b>Complete the College's Mandatory Training Courses</b>	<ul style="list-style-type: none"> <li>Code of Ethics &amp; Professional Conduct; &amp;</li> <li>Indigenous Awareness</li> </ul>			

### 1. Academics

Applicants must provide official transcripts demonstrating successful completion of an undergraduate degree, graduate, or post-graduate degree from a recognized post-secondary institution, which includes 25 science courses, with at least 13 of these courses specifically in biology. Additional core course requirements, as outlined in Table 2, must also be met. For more information on specific course requirements and definitions, see Appendix B in the [Credentialing Standard](#).

The RNS Diploma or Certificate Programs are not accredited programs for the RPBio or BIT registrant categories. However, there are many RNS courses that may meet the academic course requirements and will need to be assessed by the Registrar's Office. Contact the Registrar's Office at [registrar\\_office@CAB-BC.org](mailto:registrar_office@CAB-BC.org).

Examples of RNS courses that may meet the science academic requirements for RPBio & BIT:

- ER311 Principles & Concepts of Ecological Restoration
- ER312A Field Study in ER I
- ER312B Field Study in ER II
- ER313 Biodiversity & Conservation Biology
- ER328 Forest Restoration & Sustainable Forestry
- ER329 Mining Reclamation
- ER329 Selection and Propagation of Native Plants
- ER334 Soil Conservation & Restoration
- ER334A Restoration of Freshwater Aquatic Systems
- ER334B Restoration of Marine Aquatic Systems
- ER336 Science Communication for Ecological Restoration
- ER338A Special Topics: Climate Change
- ER338B Special Topics: Fire Ecology

UVic offers many science, biology, and ecology courses that can fulfill the RPBio and BIT academic requirements. Visit the [University Calendar](#) for program and course information. Some course examples include:

- BIOL225 Principles of Cell Biology
- BIOL215 Principles of Ecology
- BIOL230 Principles of Genetics
- BIOL324 Biology of Land Plants
- BIOL355 Evolution
- BIOL365 Animal Physiology
- BIOL366 Plant Physiology
- CHEM091 Introduction to Chemistry
- ES344 Design & Analysis for Environmental Science
- ES414 Systems Theory: An Introduction to Natural & Social Systems
- MATH376 Introduction to Mathematical Biology
- STAT123 Data Science
- STAT255 & 256 Statistic for Life Sciences I & II

In the case of an RPBio or BIT applicant that meets the minimum academic requirement, a diploma and degree respectively, but does not have the specific core course requirements (i.e., chemistry, ecology, etc.), the applicant may complete one of the following options to resolve the deficiency(ies):

- a. Challenge the course exam(s) through a recognized post-secondary institution; or
- b. Successfully complete the Graduate Record Examination (GRE) in the area(s) in which they are deemed deficient as directed by the Credentials Committee; or
- c. Complete the missing course(s) at a recognized post-secondary institution; or
- d. Obtain course credit from a post-secondary institution through Prior Learning Assessment and Recognition (PLAR), if available.

## 2. Work Experience

Work experience must align with the definition of the “practice of applied biology” as defined in the [Applied Biologists Regulation](#) as the provision of:

- a) advice or services that (i) are based on biological sciences, and (ii) relate to aquatic or terrestrial ecosystems or the living organisms, habitats or processes of those ecosystems, or
- b) advice or services that are ancillary to those described in paragraph (a).

Applicants can use volunteer experience, as long as it meets the practice of applied biology as defined in the [Applied Biologists Regulation](#) towards meeting the work experience requirement.

- Streams 1 and 2 applicants must have a minimum of three years of experience in applied biology after obtaining their degree, within the 10 years leading up to their application.
- Stream 3 requires applicants to have a Bachelor of Science degree and at least 15 years of work experience in applied biology.
- Stream 4 applicants should hold a Master's degree in Biology and have at least 13 years of applied biology work experience; OR a PhD in Biology and a minimum of 11 years of applied biology work experience.

## 3. Professional Practice Competencies

RPBio applicants of all four streams must demonstrate how they meet one of the three key indicators of each of the [College's Professional Practice Competencies](#). You can find and download more information and details on each of the seven Professional Practice Competencies [here](#).

BIT applicants do not need to meet this requirement until they are ready to apply for the “practicing” RPBio designation category.

## 4. Professional Work Products (PWPs)

The professional work product (PWP) requirement in the RPBio application allows applicants to showcase their independent thinking as professionals in applied biology and demonstrates how their practice in applied biology aligns with the [College's Professional Practice Competencies](#). To meet this requirement, applicants must provide two to four distinct PWPs in applied biology. PWPs include, but is not limited to, a report, policy, assessment, plan, briefing note, memorandum, a review report (e.g., literature review) or scientific publication(s), thesis, dissertation, poster, presentation, email communication. Draft work products written by the applicant such as draft report, draft briefing note are accepted. Draft documents authored by the applicant are acceptable as long as they meet the intent. Draft work products are often provided

to supervisors and others (e.g., clients, another professional signing off) for review and may be changed by supervisors, higher-level staff within the applicant's organization prior to being finalized. Bachelor of Honours Theses are accepted as a professional work product if they meet the [communication competency](#). The College may accept other professional work products that meet the requirements.

These PWP's should collectively include:

- Methods;
- Data analysis;
- Conclusions and/or Recommendations; and
- Effectively communicate technical scientific information to a non-expert audience.

Applicants will need to explain how these PWP's address at least one key indicator in each of the following professional competencies:

- Scientific Knowledge & Concepts
- Laws, Regulations & Policy
- Standards & Practices
- Communication

Applicants will need to describe the purpose/intent/background of each of the PWP's submitted.

## 5. References

RPBio applicants must provide three references. References do not need to be provided for BIT applicants.

References will be asked to:

- a) Confirm the applicant demonstrates the Professional Practice competencies defined by the College;
- b) Be knowledgeable of the applicant's ability and work as an applied biology professional (i.e., someone the applicant has worked with); and
- c) Not be related to the applicant unless the relative is the supervising professional.

The College recognizes the variety of work experience and employer(s) an applicant may have; therefore, it is not required that references be registrants of the College and be from a different employer(s). References must be from people with whom the applicant has worked with. An email will be sent to the reference (if applicable) from the online application, where they will receive a link directly to the reference section in the applicant's application.

## 6. Mandatory Training

All applicants who have been approved are required to complete the College's mandatory training courses in Code of Ethics and Professional Conduct, and Indigenous Awareness. The mandatory

training courses will ensure that all applied biology professionals have a baseline level of training, and is offered through the College's training portal.

## Application Fees

There are several fees that are required to be paid for your application to be processed and to become registered with the College. Refunds are not provided to applicants if they are declined registration to the College. Table 3 provides a summary of applicable fees:

Table 3: Summary of fees for ABT, ABT in Training, RPBio, and BIT

All fees are in CDN	ABT	ABT in Training	RPBio	BIT
Application Fees	\$200.00	\$125.00	\$300.00	\$175.00
Mandatory Training Fee (Code of Ethics & Professional Conduct and Indigenous Awareness courses)	\$450.00	\$450.00	\$450.00	\$450.00
Annual Dues*	\$150.00	\$83.00	\$485.00	\$150.00
Upgrade Fees (ABT in Training to ABT; BIT to RPBio)	N/A	\$75.00	N/A	\$125.00
Professional Digital Seal**	N/A	N/A	\$35.00	N/A

\*Annual dues are pro-rated to reflect the period during the College's fiscal year (January 1 to December 31st) in which your application was approved.

\*\*In November 2020, Council approved the change from issuing a physical seal to a digital seal to new RPBio and RBTech registrants at the cost of \$35. A physical seal with the College's new name can still be purchased through [Beaver Stamp Works](#) at an additional cost of \$37.75 plus shipping and taxes. All requests for a physical seal through Beaver Stamp Works are verified with the College prior to being issued.

## Continuing Professional Development

The [Continuing Professional Development \(CPD\) Program](#) is a professional development tool for College registrants to maintain and enhance their professional competencies, improve as a professional, and enhance their professional practice. Participation in the CPD Program is mandatory for all practicing and in-training registrants, including those registered as on leave. The program ensures registrants remain up to date as a professional and in their area of practice, maintain or enhance their professional competencies, and complete mandatory training requirements.

Registrants must complete 100 CPD points of eligible activities over three consecutive years. Eligible activities are those within the CPD categories, which can be found [here](#). Registrants must submit annual records of the CPD activities they complete by December 31<sup>st</sup> of each year. Learn more about the [Continuing Professional Development Program here](#).

## Learn more about the College of Applied Biologists

- Learn more about the [registration process](#) and [application tutorials](#).

- Learn more about the [Continuing Professional Development Program](#).
- Visit the FAQ page [here](#).
- Contact CAB at 250-383-3306 or [registrar\\_office@CAB-BC.org](mailto:registrar_office@CAB-BC.org).