



COLLEGE OF
APPLIED BIOLOGY

Credentialing Standard

October 2021

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Applications for Registration – all applicants

Applications for registrations for a category described below will only be accepted in a College approved format and must include:

- a) the category of registration applied for;
- b) all completed requirements for the category;
- c) an Indictable Offence Declaration
- d) original education transcripts submitted to the College direct from the institution either electronically or by paper copy; and
- e) payment in full to the College of Applied Biology of the application fee

Registered Professional Biologist

Streams of entry

Stream 1

Stream 1 – College Accredited Program – the applicant shall provide:

- a) Documentation demonstrating successful completion of a program accredited by the Collegeⁱ
- b) Proof of 3 years work experience within the last 10 years as defined in section 1.3
- c) References as defined below
- d) Professional work examples as defined below

Stream 2

Stream 2 – Non-accredited Program – the applicant shall provide:

- a) Documentation demonstrating successful completion of an education program that meets the requirements defined below
- b) Proof of 3 years work experience as defined below
- c) References as defined below
- d) Professional work examples as defined below

Stream 3

Stream 3 – Applicants with at least 15 years applied biology work experience – the applicant shall provide:

- a) Documentation demonstrating successful completion of a degree, 25 sciences courses; 13 of which must be in biology as defined below
- b) Proof of 15 years work experience as defined below
- c) References as defined below
- d) Professional work examples as defined below

Stream 4

Stream 4 – Applicants with applied biology work experience as defined below and with graduate and post-graduate degrees in applied biology – the applicant shall provide:

- a) For applicants with MSc degree – proof of 13 years work experience in applied biology
- b) For applicants with PhD degree – proof of 11 years work experience in applied biology
- c) Documentation demonstrating successful completion of a degree, 25 sciences courses; 13 of which must in biology as defined below.
- d) References as defined below
- e) Professional work examples as defined below

Education

The applicant shall submit documentationⁱⁱ demonstrating successful completion of an undergraduate, graduate, or post-graduate degree from a recognizedⁱⁱⁱ post-secondary institution in Biology or in another biological science which includes 25 science courses^{iv}, 13 of which must be in biology plus additional core requirements as set out below.

- i. Communications (first year or higher)
 - e.g. course that focuses on communication skills such as English composition, technical writing, journalism, public speaking or use of mass media
- ii. Chemistry (first year or higher)
 - e.g. introductory chemistry, organic chemistry, physical chemistry
- iii. Numeracy

Two courses as defined below

- Two courses in statistics, one of which must be at a second year or higher level, or,
 - One course in mathematics at a first year or higher level and one course in statistics at a second year or higher level
- iv. Applied Biology (second year or higher or equivalent)
 - e.g. Conservation Biology, Ecological Restoration, Landscape Ecology, Wildlife Management, Fisheries Management, Environmental Toxicology
 - v. Ecology (second year or higher or equivalent)
 - e.g. Ecology, Population or Community Ecology, Microbial Ecology

At least three (3) courses from the following five subject areas - Second Year or Higher Level Courses (or equivalent):

vi. Systematics or Classification

- e.g. Plant Systematics, Vertebrate Zoology, Invertebrate Zoology, Systematics of Mosses and Lichens, Taxonomy and Comparative Anatomy of Vertebrates

vii. Genetics

- e.g. Genetics, Molecular Genetics, Genomics

viii. Cellular

- e.g. Molecular Biology, Cell Biology

ix. Physiology

- e.g. Animal Physiology, Plant Physiology, Environmental Physiology, Human Physiology, Cellular Physiology

x. Evolution

- e.g. Evolution, Evolutionary Ecology, Genome Evolution, Evolutionary Dynamics

The balance of biology or science courses must meet the definitions below:

xi. Biology courses

- Courses that include a majority (>50%) of biological concepts, theory, or practice can come from a range of disciplines such as geography, environmental science, forestry and forest sciences, ecological restoration, and environmental engineering.

xii. Science courses

- Courses that include a majority (>50%) of scientific concepts, theory, or practice may include subject areas such as physics, chemistry, mathematics, geology, geography, environmental science, forestry and forest sciences, ecological restoration, and engineering.

Where the Applicant has a degree but does not meet the academic requirements as outlined above, the applicant may:

- a) challenge the course exam(s) through an recognized post-secondary institution; or
- b) successfully complete the GRE examination in the area(s) in which they are deemed deficient as directed by the Credentials Committee; or
- c) complete the missing courses at an recognized post-secondary institution; or
- d) Obtain course credit from a post-secondary institution through Prior Learning Assessment and Recognition (PLAR) if available.

Work Experience

- The applicant shall submit documentation to demonstrate a minimum of three (3) years' experience practicing applied biology post degree within the ten (10) years prior to application.
- The work experience must demonstrate the competencies prescribed on College approved forms.
- The 3 years of work experience may include up to 7 months of volunteer work experience in applied biology gained post university graduation.

References

References must be sent directly to the Registrar from three practitioners with whom the applicant has worked, one of whom should, but not necessarily be, a Professional Biologist, or similar professional and who:

- a) can attest to the competencies defined by the College;
- b) are not related to the applicant unless the relative is the supervising professional; and
- c) are knowledgeable about the applicant's experience as a biologist.

Only two of the references can be from a current employer.

References must be submitted using forms approved by the College.

Professional Work Examples

Reports

The applicant must submit at least one (1) but not more than three (3) reports or published articles in applied biology written following completion of the undergraduate degree. Draft reports will not be accepted. Post-graduate degree theses on applied biology topics that have been accepted by the degree granting institution may be accepted as professional reports.

Where a report has multiple authors, the role of the applicant must be corroborated by the lead author in writing.

The report must demonstrate to the satisfaction of the Credentials Committee the applicant's ability to:

- a) design a project;
- b) implement a study design;
- c) analyze data using inferential or descriptive statistical methods;
- d) draw conclusions; and,
- e) make management recommendations.

Scientific Communications

The applicant must submit one (1) example of work in which they communicated scientific concepts to a lay audience. Examples may include annotated presentations, briefing notes, or interpretation documents for the public.

Mandatory Training – All Streams

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Registered Professional Biologist – Limited License

Education

TBD

Work Experience

TBD

Limited License Scope

TBD

Mandatory Training

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Biologist in Training

Education

Registration as a Biologist in Training shall be granted to an applicant who has completed an accredited program or satisfied the education requirements Stream 2 above.

Mandatory Training

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Registered Biology Technologist

Registration as a Registered Biology Technologist will be granted to an applicant who has satisfied all of the requirements set out below and submitted evidence, in the approved format, to the satisfaction of the Credentials Committee and Registrar. The particular requirements are set out in 4 streams:

Streams of entry

Stream 1

Education

Stream 1 Accredited diploma or degree – the applicant shall provide documentation demonstrating successful completion of an accredited program recognized by the College.

Work Experience

Proof of at least 2 years of post-diploma or degree work experience which may include up to 5 months post diploma volunteer work experience which has been gained within the past 5 years.

Reports

A data report, written post diploma, demonstrating the applicant's ability to:

- a) document methods of data collection; and
- b) summarize and present data in a coherent and logical manner.

References

References sent directly to the Registrar from two practitioners with whom the applicant has worked, one of whom should, but not necessarily be, a Professional Biologist or Registered Biology Technologist, and

- a) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- b) must come from individuals who are knowledgeable about the applicant's experience in applied biology, and who are not related to the applicant unless the relative is the supervising professional.

Where claiming volunteer experience a separate form must be submitted for each volunteer activity claimed.

[Stream 2](#)

Education

Stream 2 Non-accredited Diploma or degree – the applicant shall provide documentation demonstrating successful completion of a diploma or degree program comprised of a minimum of 20 courses which, in the opinion of the Credentials Committee and Registrar, is comprised of equivalent content to those of an accredited program, and which includes the following Core Requirements:

- a) Communications;
- b) Mathematics/Statistics;
- c) Environmental Science;
- d) Field/Laboratory Techniques; and
- e) Applied Biology.

Work Experience

Proof of at least 2 years of post-diploma work experience which may include up to 5 months post diploma volunteer work experience which has been gained within the past 5 years.

Reports

A data report, written post diploma, demonstrating the applicant's ability to:

- a) document methods of data collection; and
- b) summarize and present data in a coherent and logical manner.

References

References sent directly to the Registrar from two practitioners with whom the applicant has worked, one of whom should, but not necessarily be, a Professional Biologist or a Registered Biology Technologist, and

- a) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- b) must come from individuals who are knowledgeable about the applicant's experience in applied biology, who are not related to the applicant unless the relative is the supervising professional.

Where claiming volunteer experience a separate form must be submitted for each volunteer activity claimed.

Stream 3

Education

Stream 3 Accumulated courses, no diploma – the applicant shall provide documentation demonstrating successful completion of a minimum of 20 courses, which in the opinion of the Credentials Committee and Registrar include all core courses for stream 2

Work Experience

Proof of at least 3 years work experience which may include up to 5 months volunteer experience after completion of course work which has been gained within the past 5 years.

Reports

A data report demonstrating the applicant's ability to:

- a) document methods of data collection; and
- b) summarize and present data in a coherent and logical manner.

References

References sent directly to the Registrar from two practitioners with whom the applicant has worked, one of whom should, but not necessarily be, a Professional Biologist or Registered Biology Technologist, and

- c) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- d) must come from individuals who are knowledgeable about the applicant's experience in applied biology, who are not related to the applicant unless the relative is the supervising professional.

Where claiming volunteer experience a separate form must be submitted for each volunteer activity claimed.

Mandatory Training – All Streams

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Registered Biology Technologist – Limited License

Education

TBD

Work Experience

TBD

Limited License Scope

TBD

Mandatory Training

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Registered Biology Technologist in Training

Education

Registration as a Registered Biology Technologist in Training will be granted to the applicant who has satisfied all the education requirements set out for Registered Biology Technologist Stream 1 (accredited) or Stream 2 (non accredited).

Mandatory Training

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Applied Biology Technician

Registration as an Applied Biology Technician will be granted to the applicant who has satisfied all the requirements set out below, and submitted evidence, in the approved format, to the satisfaction of the Credentials Committee and Registrar.

Streams of Entry

Stream 1

Education

Stream 1 Accredited certificate – the applicant shall provide documentation demonstrating successful completion of a certificate from an accredited program recognized by the College.

Work Experience

Proof of at least 1 year of post-certificate work experience which has been gained within the past 5 years

References

A reference must be sent directly to the Registrar, from one practitioner preferably, but not necessarily, a Professional Biologist or Registered Biology Technologist with whom the applicant has worked, and

- a) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- b) must come from an individual knowledgeable about the applicant's experience in applied biology, and who is not related to the applicant unless the relative is the supervising professional.

Stream 2

Education

Stream 2 Accumulated courses, no certificate – the applicant shall provide documentation demonstrating successful completion of a minimum of 200 hours or 5 instructional weeks of course work.

At least one course or course module in the following competency areas:

- a) Natural resource survey skills;
- b) Applied biology identification skills; and
- c) Field navigation.

Work experience

Proof of 1 year work experience which has been gained within the past 5 years.

References

A reference sent directly to the Registrar from one practitioner preferably, but not necessarily, a Professional Biologist or Registered Biology Technologist with whom the applicant has worked and

- a) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- b) must come from an individual knowledgeable about the applicant's experience in applied biology, and who is not related to the applicant unless the relative is the supervising professional.

Stream 3

Education

Experience with no formal education.

Work experience

Proof of 3 years of work experience in applied biology which has been gained within the past 5 years.

Reference

References sent directly to the Registrar from two practitioners with whom the applicant has worked, one of whom should, but not necessarily, be a Professional Biologist or Registered Biology Technologist, and

- a) can attest to the character, integrity, work ethic and/or work experience of the applicant and validate the work history; and
- b) must come from individuals who are knowledgeable about the applicant's experience in applied biology, and who are not related to the applicant unless the relative is the supervising professional.

Mandatory Training – all streams

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Applied Biology Technician in Training

Education

Registration as an Applied Biology Technician in Training will be granted to an applicant who has satisfied all the academic requirements as set out in Stream 1 or Stream 2 above.

Mandatory Training

The applicant must successfully complete the professional ethics requirement within 12 months of notification of successfully meeting the application requirements. Applicants who have not successfully met this requirement would need to reapply.

Students

A student may apply for registration as a student member if the applicant submits documentation from a post-secondary institution or training provider that is:

- a) accredited by the College
- b) may lead to registration through one of the categories of registration

ⁱ Accredited institutions have met a standard set by the College of Applied Biology (<https://www.cab-bc.org/accredited-post-secondary-programs-rpbio>).

ⁱⁱ Documentation must consist of an official original transcript of marks issued by the institution that includes a record of courses and degrees obtained from each university or college attended. Transcripts not in English must be accompanied by an English translation signed by a qualified, official translator. Degrees granted by a post-secondary institution outside of North America will be required to be evaluated by a credential evaluation service identified by the College.

ⁱⁱⁱ 'Recognized' means the academic institution has met a quality assurance programs as defined by the British Columbia Council on Admission and Transfer (<https://www.bccat.ca/system/accreditation>) or similar definition in another jurisdiction.

^{iv} A course is defined as a one-semester course, which includes at least 3 lecture or lab hours per week.