



Request for Proposal: Creation of Applied Science & Engineering Technician Exam

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Creation of Technician Exam for General Competencies

Introduction

Applied Science Technologists and Technicians of British Columbia (ASTTBC) is soliciting proposals from qualified consultants to assist the organization in the creation of a technician level exam that can be used to test the general competencies of applied science and engineering technicians for the purposes of registration.

Applied science and engineering technicians registered with ASTTBC often work in occupations that ensure public safety and maintenance of a variety of systems and processes – from water to electricity to transportation. They practise in and across 22 disciplines in sectors including avionics, biomedical, chemical, computers, electrical, environmental, geological, instrumentation, oil and gas, robotics, and telecommunications.

There are ten (10) general competencies (learning outcomes) for certified technicians which were developed by Technology Accreditations Canada (TAC). ASTTBC requires all certified technician applicants to demonstrate they meet these general competencies. The certification exam is intended to evaluate whether an individual meets these competencies.

Background

ASTTBC was founded in 1958 by applied science and engineering technologists and technicians. It became the regulator of applied science technologists (AScT) and technicians (CTech) in 1985 with the coming into force of the *ASTT Act* and continued to carry on association and advocacy-related activities as a so-called dual mandate body. In February 2021, ASTTBC moved from its own legislation and came under the *Professional Governance Act (PGA)*, along with five other regulators whose registrants work in the natural and built environments. As a regulator ASTTBC is looking to reduce barriers for Canadian and internationally educated people who may want to work in the engineering sector.

This request for proposal (RFP) is being issued to obtain proposals from highly professional and experienced consultants who:

- Deliver high quality services as outlined below with skill, integrity, confidentiality, accuracy, and expertise;
- Are familiar with Technology Accreditation Canada's standards;
- Are experienced in psychometrics; and
- Have an established reputation for superior consulting.

Please note that preference shall be given to consultants who have direct experience with this type of work where quality, service, and price are equivalent.

Project Overview

ASTTBC regulates approximately 8,000 applied science and engineering technology professionals in British Columbia. It registers those who meet the requirements set out in its bylaws as technologists, technicians, and technical specialists. ASTTBC sets and maintains standards of competence and ethics, continuing competence requirements and conducts investigations into and takes disciplinary action regarding professional misconduct, conduct unbecoming, and incompetent practice.

ASTTBC is committed to protecting the public by ensuring its registrants' practice and conduct is consistent with a safe, healthy, and sustainable society and environment.

The ASTTBC Credentials Committee is interested in ensuring that the criteria used for determining recognition of foreign credentials is objective, reasonable and does not exhibit bias and that the methods for assessing these credentials are both necessary and sufficient for determining whether the requirements for registration are met. An exam is an unbiased assessment that should eliminate any variance in evaluating substantial equivalence of non-accredited/international education programs and ASTTBC is hopeful that it will result in establishing a fair and objective foreign credential recognition program. ASTTBC will be tracking and reporting on this data over several years. As ASTTBC prepares to come under the new legislation of the *International Credential Recognition Act* there is some urgency to begin this work.

Phase 1 of the project would consist of discussion(s) with the consultant/psychometrician to begin development of a question-bank for the exam. The technician level general competencies have already been defined but ASTTBC may want to survey its current certified technician registrants on specific minimum entry level skills and knowledge to ensure we are creating an exam that accurately measures whether an applicant has met these competencies.

A taskforce of registrant volunteers will be appointed to assist with overseeing the exam development. ASTTBC will also be looking for Registrant volunteers to assist in writing exam questions. Training on exam question writing for these volunteers will be provided by the psychometrician. The exam taskforce members would then review the draft exam questions for ASTTBC staff review/edits. These questions would form the question-bank.

Phase 2 of the project will start with the assembly of a pilot test from the established question bank. ASTTBC looks to create focus groups to test validity, reliability and identify any bias in the exam. Focus groups would contain recent graduates from Canadian accredited programs including a variety of disciplines, recently registered internationally trained professionals, and possibly individuals without an applied science or engineering education. ASTTBC will work with the psychometrician to collect and analyze the exam data against the project outcomes (i.e. is the test measuring what it aims to measure) and the findings will be presented to the exam development taskforce. The project will move to phase 3 once the exam questions have been reviewed, validated, approved and a pass/fail mark has been determined.

Phase 3 of the project includes summarizing the exam development and the development of an implementation plan involving meetings with stakeholders (i.e. industry groups, registrants, applicants, students, immigrant community consultations, other regulators) to ensure full

transparency and consistent messaging regarding exam requirements, standards, and accessibility as well as providing accurate, correct information for the website.

Phase 4 of the project will identify exam performance metrics. ASTTBC will be undergoing continuous improvement reviews to ensure the exam continues to achieve its expected outcomes. ASTTBC is hoping to enter into a sharing agreement with the other Canadian jurisdictions as we move towards a national standard for applied science and engineering technologists and technicians.

Timeline

Phase	Length	Main Outcomes
1	4- 6 months	Defining competencies and creating specifications, exam question development, and exam assembly
2	6 months	Test administration, question, and test analysis, and scoring and reporting
3	3 months	Summarize exam development, create implementation plan, and launch exam
4	Ongoing	Collect, analyze, and report on data collected from administering the exam.

Project Goals

1. Create a standardized general exam for the ten general competencies for applied science and engineering technicians.
2. Make recommendations as to the feasibility of developing future exams for key disciplines.

Scope of Work

- Take a risk-based approach to identify what, if any, risks to the public and environment are associated with the development of a general non-discipline specific technician exam.
- Work with ASTTBC staff and subject matter experts in the development of competencies that cover both education and work.
- Develop a general competency exam for technicians that will include those competencies as recognized by the International Engineering Alliance graduate attributes document and the Dublin Accord.

Deliverables

The selected consultant will be responsible for providing expert advice throughout the contract and for the following deliverables:

- Conduct interviews with stakeholders and subject matter experts.
- Project Coordination – Including regular meetings and status reports to keep project on schedule and keep identified stakeholders apprised of the process.
- Environmental Scan - Identify other groups which may currently offer a technician exam within those countries who are signatories to the Dublin Accord.
- Document Review – Reviewing, Professional Governance Act and ASTTBC regulation and ASTTBC bylaws, registration, and related policies.
- Final technician exam.

Submission Requirements

Submission Details

Please direct questions by email to the ASTTBC Chief Executive Officer, Theresa McCurry (tmccurry@asttbc.org). Responses to queries, or timing of responses, cannot be guaranteed. Questions and answers to this RFP will be posted on the website.

To be eligible for consideration, please provide a proposal by MS Word or PDF format.

Response procedure

The tender responses must contain the following summarized information:

1. Proponent Profile (Appendix A)
2. References/Experience (Appendix B)
3. Proposed Implementation Approach and Resources (Appendix C)
4. Pricing (Appendix D)
5. Proof of liability insurance (Appendix E)

Proponent profile (Appendix A)

Proponents are asked to provide details about their business including:

1. Legal name, legal status, and mailing address
2. Key representative for matters related to this RFP including name, title, telephone, and email
3. Head office location; website address
4. Number of years in business
5. Other information relevant to this project

To be eligible for consideration, the proposal must be received no later than **4:00 pm Pacific Time on January 31, 2024**, via email to Theresa McCurry (tmccurry@asttbc.org).

Disclaimer

Applicants will not be compensated or reimbursed for costs incurred in preparing proposals.

ASTTBC reserves the right to:

- Accept or reject any or all proposals;
- Waive any anomalies in proposals;
- Negotiate with any or all applicants; and
- Modify or cancel the RFP.

All proposals, including attachments and any documentation, submitted to, and accepted by Applied Science Technologists and Technicians of BC in response to this RFP become the property of ASTTBC. Proponents shall disclose in their proposals any actual or perceived conflicts of interest and/or existing business relationships it may have with ASTTBC, its registrants, Board and committees, and employees.

Appendix A

Proponent profile

Company's legal name and legal status:

Key contact person:
(name, title, telephone, and e-mail)

Head office location:

Number of years in business:

Other information:

Appendix B

Experience/Reference

The Proponent must have demonstrated experience in research project work. Specifically, the Proponent:

1. Must be able to clearly demonstrate a proven track record in similar report authoring.
2. Provide a minimum of three (3) written references as evidence of previous experience providing services to clients in similar industries. References may be for contracts currently being performed or recent contracts where work has been successfully provided. Please provide references even if you must hide the name to show experience with similar implementations. References will be contacted as part of the review process once shortlisted and not without prior consent from the proponent. Proponents must use the tables provided (Appendix B) to provide project experiences and references.
3. Describe the Proponent's suitability, experience, etc., which sets them apart from other proponents.

Project experience and reference

Project A

Project name:

Location:

Client name:

Client contact information:

Project value:

Project duration:

Handled as:

Project Size and Scope:

Additional comments:

Project B

Project name:

Location:

Client name:

Client contact information:

Project value:

Project duration:

Handled as:

Project Size and Scope:

Additional comments:

Project C

Project name:

Location:

Client name:

Client contact information:

Project value:

Project duration:

Handled as:

Project Size and Scope:

Additional comments:

Appendix C

Implementation resourcing and approach

The Proponent is asked to provide a summary of the following:

- Description of their implementation approach
- Description of their project management methodology including status reporting, planning, change requests, escalation, and resolution process
- Proposed implementation timeline
- Proposed report areas to be evaluated
- Proposed implementation team outlining both internal and external/contractors and subs

Description of their implementation approach

Description of their project management methodology including status reporting, planning, change requests, escalation, and resolution process.

Proposed implementation timeline

Proposed report areas to be evaluated

Proposed implementation team outlining both internal and external/contractors and subs

Appendix D

Pricing

Please update the table below with pricing information to support your submission.

Questions	Responses
Please list the Activities that are part of this pricing estimate.	
What do you base your pricing on (Fixed, rate per meeting, etc)?	
Is there a lock-in period?	
Are there any penalties for withdrawing from the service?	
How will change requests cost be approached during the project?	

Appendix E

Proof of Liability Insurance (minimum \$2 million)

(please attach)