

**THE APPLIED SCIENCE TECHNOLOGISTS AND TECHNICIANS
OF BRITISH COLUMBIA**

(ASTTBC)

**REGISTERED TECHNOLOGY MANAGER (RTMGR)
CERTIFICATION POLICY**

2013 08 16

PREFACE

This policy approved by the ASTTBC Council on September 26, 2013 is issued to the Registered Technology Manager Certification Board (RTMgrCB) to serve as the procedures and criteria for setting certification standards and processing applicants for certification as Registered Technology Managers (RTMgr) or Provisional Registered Technology Managers (RTMgr (Provisional)).

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DISCLAIMER

ASTTBC Directors, employees, officers, volunteers and the duly appointed members of the Registered Technology Manager Certification Board (RTMgrCB) are responsible for administering the policy and procedures. Granting of ASTTBC certification to an individual merely infers that the individual has satisfied the requirements and minimum standards described in this policy and is not a guarantee of competence.

ASTTBC does not accept liability for any errors or omissions that may arise as a result of the services or work performed by an individual certified by ASTTBC RTMgrCB or for the consequences of any actions taken by members and registrants and no legal proceeding for damages may be commenced or maintained against the Directors, employees, officers or volunteers of the association because of anything done or omitted in the performance or intended performance of any duty under the ASTT Act, or in the exercise or intended exercise of any power under that Act.

Table of Contents

Preface

Disclaimer

1.0 Definition of Registered Technology Manager	1
2.0 Profile	1
2.1 Registered Technology Manager (RTMgr)	1
2.2 Applied Science Technologist (AScT)	1
2.3 Certified Technician (CTech)	1
3.0 Categories of RTMgr Certification	1
4.0 Certification Requirements	1
4.1 Eligibility for RTMgr Certification	1
4.2 General Requirements	2
4.3 Titles	2
4.4 Work Experience and Education Requirements	2
4.5 Competency-based Evaluation of Applicants	3
4.6 Proof of Education Qualifications	4
4.7 Supplementary Evidence	4
4.8 Notification of Upgrading Requirement	4
5.0 References	4
6.0 Cancellation of Certification	5
7.0 Registered Technology Manager Certification Board (RTMgrCB)	5
7.1 Board Members and Meetings	5
7.2 Responsibilities of the RTMgrCB	6
8.0 Continuing Professional Development	6
9.0 Appeal Process	7
10.0 Reinstatement of Registration	8
11.0 Storage of Files	8
12.0 Freedom of Information	9

Appendices

Appendix A	Certification Requirements for Registered Technology Manager (RTMgr)
Appendix B	Certification Requirements for Provisional for Registered Technology Manager (RTMgr (Provisional))

1.0 Definition of Registered Technology Manager (RTMgr)

A Registered Technology Manager (RTMgr) is an individual certified and registered with ASTTBC in accordance with the ASTT Act and Regulations of which this RTMgr Certification Policy is an integral part. The scope of practice of an RTMgr includes the supervision and / or management of persons, equipment or processes typically required and used in a technology environment.

2.0 Profile

- 2.1** A Registered Technology Manager is a person that is a member of ASTTBC as an Applied Science Technologists (AScT) or a Certified Technician (CTech) as described below. In addition to being an AScT or CTech, the person has achieved the required standards for certification as a Registered Technology Manager (RTMgr) and adheres to the ASTTBC Code of Ethics and Practice Guidelines.
- 2.2** The **Applied Science Technologist (AScT)** is a professional capable of assuming and exercising independent judgment to develop and manage technology. This is achieved by reason of education, training and experience in the application of known principles of science and mathematics. The technologist is a graduate of an accredited diploma program, or equivalent, who has completed two or more years of progressive experience in an area of work directly related to the selected discipline.
- 2.3** The **Certified Technician (CTech)** is a professional capable of carrying out responsible and varied technical tasks usually in a specialized portion of the field of applied science technology by virtue of education qualifications, training and experience. The technician is a graduate of an accredited certificate program, or equivalent, who has completed two or more years of progressive experience in an area of work directly related to the selected discipline.

3.0 Categories of RTMgr Certification

There are two (2) categories of certification:

1. Registered Technology Manager – RTMgr
2. Provisional Registered Technology Manager – RTMgr (Provisional)

4.0 Certification Requirements

4.1 Eligibility for RTMgr Certification

To be eligible for RTMgr certification the applicant must be a member of ASTTBC as an applied science technologist (AScT) or a Certified Technician (CTech). In addition to being an AScT or CTech, applicants must have a minimum of six (6) years relevant progressive experience in technology supervision or management, or an equivalent combination of education and experience in supervision or management in an approved discipline. RTMgr applicants must satisfy all other requirements as specified in this policy.

Upon approval of the RTMgrCB, the member shall be entitled to use the designation RTMgr in addition to the AScT or CTech.

4.2 General Requirements

The RTMgr Certification Board (RTMgrCB) shall approve the certification of an applicant who:

- 4.2.1 Is an ASTTBC member in good standing with either an AScT or CTech designation and has additional education and work experience as specified in 4.4.
- 4.2.2 Has submitted evidence of meeting the required minimum education qualifications or equivalent as specified in Appendix A.
- 4.2.3 Has provided evidence of required work experience relevant to the RTMgr designation as set out in Appendix A.
- 4.2.4 An application for RTMgr certification from an applicant that is the subject in a Practice Review Board (PRB) issue will be put in abeyance until all PRB conditions are satisfied.

All members registered under this policy will remain eligible for certification as a RTMgr or RTMgr (Provisional) on condition that their ASTTBC membership as either an AScT or CTech is in good standing and the RTMgr or RTMgr (Provisional) continues to practice as a supervisor or manager within a technology environment.

The RTMgrCB must approve the certification of an applicant unless there is insufficient documentation to substantiate the certification requirements.

In the event of a concern related to 4.2.1 the matter must be referred by the RTMgrCB chair to the Registrar for consideration and possible action by the PRB.

4.3 Titles

The titles Registered Technology Manager, RTMgr and Provisional Registered Technology Manager, RTMgr (Provisional) may only be used by a person certified by the RTMgrCB and are not transferable. These titles are awarded to individuals not companies.

4.4 Work Experience and Education Requirements

The work experience and education requirements for certification are described in Appendix A for RTMgr and Appendix B for RTMgr (Provisional).

- 4.4.1 Prior Learning Assessment and Recognition (PLAR)

The competencies specified in Appendix A of this policy may be achieved through various combinations of work experience, self-study, coaching or mentoring, participating in seminars, workshops or conferences and other professional development initiatives.

Applicants requesting PLAR for RTMgr certification will be required to describe in writing or other means how they have achieved mastery of competencies.

Applicants that have six (6) or more years of technology management experience during which the required competencies described in Appendix A have been achieved may apply for certification on the basis of experiential learning.

4.4.2 Education and Experience

Competencies as set out in Appendix A will be deemed to have been met if the applicant holds a Diploma or Bachelor of Technology in business management, MBA or other appropriate business education credential that meets the required competencies outlined in Appendix A.

4.5 Competency-based Evaluation of Applicants

The assessment of all applicants will be based on the principle of competency.

4.5.1 To be assessed as competent, applicants must prove a substantial comprehension, functional level of usage and experience in the selected competencies. The indicators listed for each competency provide further explanation to the performance expectations of the applicant. Appendix A describes the competencies and indicators for RTMgr; Appendix B describes the certification requirements for RTMgr (Provisional).

4.5.2 Minimum Competency and Indicator Requirements

There are primary and secondary competencies. To meet the requirements for RTMgr a minimum of eighty percent (80%) of primary and eighty percent (80%) of the secondary competencies must be achieved. For each competency selected, a minimum of seventy five percent (75%) of the indicators must be achieved.

4.5.3 Interview or Work Audit

The RTMgrCB may request an applicant to attend an interview with one or more appointees of the RTMgrCB. The RTMgrCB may request an onsite work audit of any applicant. The costs for conducting an interview or an audit may be payable by the applicant.

4.6 Proof of Education Qualifications

Original official transcripts of marks issued by education institutions must be submitted as evidence of education qualifications. If for a valid reason acceptable to the RTMgrCB the original transcripts are not available the applicant must provide detailed program and course descriptions.

A translator approved by Immigration Canada or equivalent must translate any documents written in a language other than English. The RTMgrCB reserves the right to request notarized copies of original documents.

The applicant is responsible for any costs incurred in the preparation of documents submitted in English to ASTTBC.

4.7 Supplementary Evidence

Applicants may submit supplementary documentation of their competencies including:

- Evidence of having developed a successful business based on applied science.
- Books or published articles written by the applicant on topics related to their field.
- Teaching in their field at a post-secondary education institution.
- An invention or designer / developer of special processes related to their field.
- Hold a BSc or similar qualification in a science, engineering or technology discipline.
- Exhibit other attributes demonstrating professional excellence acceptable to the RTMgrCB.

4.8 Notification of Upgrading Requirements

The Registrar shall advise an applicant in writing of the RTMgrCB decisions.

If the RTMgrCB determines an applicant has not satisfied the minimum competencies the Registrar or designate will provide the applicant in writing an explanation of the additional experience or education required to achieve the deficient competencies.

5.0 References

An applicant will provide names and addresses of four (4) people qualified to provide a credible, objective assessment of the technical abilities, judgment, work accuracy, attitude, personal characteristics and general professional outlook of the applicant. Acceptable references will normally include those who practice in technology management and have an appropriate professional designation or education qualification. The referees must be able to provide or confirm the approximate dates, duties involved and level of responsibility supporting claims of the applicant.

All information received from references will be kept in strict confidential except as required by law or for administrative purposes.

The RTMgrCB requires three (3) out of four references to endorse that an applicant has satisfied the work experience requirements. The immediate supervisor or manager of the applicant must be included as a reference. Self-employed applicants may provide references from clients who can verify the complexity and quality of work performed or services provided.

If an applicant is working in an environment where there are no professionals to act as references, the RTMgrCB may accept alternate references at their discretion.

6.0 Cancellation of Certification

The Practice Review Board (PRB) may cancel the certification if the certification was made in error, under false pretenses, the member violates the Code of Ethics or if the member becomes ineligible for full certification. Certification may also be cancelled for non-payment of dues as approved annually by ASTTBC Council.

7.0 Registered Technology Manager Certification Board (RTMgrCB)

7.1 Board Members and Meetings

ASTTBC guidelines on the Terms of Office for Board Members apply to the RTMgrCB.

The Registrar will recommend to the ASTTBC Council a minimum of six persons for appointment to the RTMgrCB. Each appointee will be capable of carrying out the duties of a File Reviewer.

Whenever possible, the appointee should be an experienced RTMgr. A minimum of four (4) appointees must be ASTTBC members as either AScT or CTech.

The Council, at their discretion may appoint a maximum of two persons who are not registered members of ASTTBC. These persons will be appointed because of their exceptional experience in technology management. Non ASTTBC registered members appointed by Council may serve as Chair or Vice Chair.

RTMgrCB members are eligible to participate in all activities, may review files and are eligible to vote. RTMgrCB members or any appointed members must adhere to the ASTTBC Confidentiality Policy, agree to signing the confidentiality agreement and are bound by the ASTTBC Code of Ethics and Practice Guidelines.

RTMgrCB meetings will be held approximately five times a year. Attendance at the meetings may be in person or by teleconference or other electronic means. A quorum for the meeting is four RTMgrCB members.

7.2 Responsibilities of the Registered Technology Manager Certification Board (RTMgrCB)

- 7.2.1 The RTMgrCB member appointed to review a file shall consider applications for certification and make recommendations for the RTMgrCB to:
- Approve the application
 - Refuse the application, or
 - Defer the approval of the application until the applicant has complied with the requirements.
- 7.2.2 Before approving certification, the RTMgrCB may, at its discretion, require an applicant to:
- Pass one or more examinations set or selected by the RTMgrCB,
 - Obtain more experience of a kind and duration satisfactory to the RTMgrCB
- 7.2.3 The RTMgrCB or the Registrar who serves as the Secretary to the RTMgrCB shall send a written notice of any decision made by the RTMgrCB to the applicant. If the decision made by the RTMgrCB is to refuse or defer certification, the applicant will be informed of the reasons for the decision.
- 7.2.4 Subject to the approval of the ASTTBC Council, the RTMgrCB shall establish and implement policies and procedures relating to:
- Certification;
 - Standards for Certification;
 - Examinations;
 - Levels of Certification;
 - Other matters as may be determined by Council
- The RTMgrCB shall regularly review its policies and methods and recommend changes to the Council as required.
- 7.2.5 To meet its obligations, the RTMgrCB shall have the power to appoint File Reviewers to assess applications for certification. The RTMgrCB shall have the responsibility for the consistency of recommendations made by appointed reviewers.

8.0 Continuing Professional Development

In the interests of protecting public health and safety, the environment and economy, it is essential that RTMgrs keep informed of trends and innovation in their field in order to maintain proficiency and competence. ASTTBC is required to assure the public that members maintain the high standards set for registration. The ASTTBC policy on Continuing Professional Development (CPD) applies to RTMgr.

9.0 Appeal Process

The process for an appeal is:

Within thirty (30) days of notification of classification an applicant may request a second review of the file by a member of the RTMgrCB.

- 9.1** An applicant whose application has been refused by the RTMgrCB may, within thirty (30) days of receiving a notice of final refusal, request the ASTTBC Council to review the application by serving on the Registrar a written request for a review by the ASTTBC Council setting out the reasons why, in his/her opinion, certification as a RTMgr should be approved.
- 9.2** Where an applicant or registrant has applied to ASTTBC Council for leave to appeal a decision of the RTMgrCB the ASTTBC Council may, in its sole discretion, decide either to deny leave to appeal or, alternatively, to grant leave to appeal in which latter case it shall hear such appeal at a time of its choosing. In either case, the applicant or registrant shall be advised by the Registrar of Council's decision.
- 9.3** A written notice of appeal submitted to the Registrar is required. This written notice shall describe the decision appealed from and state the specific reasons for appeal and shall be served upon the Registrar not more than thirty (30) days after the date that the decision of the RTMgrCB was communicated to the investigated person.
- 9.4** In a timely manner, the ASTTBC Council, on receiving a written notice of an appeal from the Registrar, shall have served on the applicant or registrant a notice of its willingness or not to hearing of an appeal, (stating the date, time and place on and at which ASTTBC Council will hear the appeal).
- 9.5** Any member of the ASTTBC Council who has participated in any way in the decisions of the RTMgrCB which gave rise to the decision being appealed shall not participate in any deliberations or in any appeal before ASTTBC Council.
- 9.6** In a timely manner, ASTTBC Council on receiving a written notice of an appeal may do any or all of the following:
 - 9.6.1** Decide if an appeal is warranted and grant or deny leave to appeal as it sees fit make any adjournment of the proceedings.
 - 9.6.2** Refer the matter to an Appeals Committee for further consideration and a timely report, to be convened and conducted at the discretion of the Registrar.
 - 9.6.3** Receive further evidence in any manner it deems fit from and of the parties involved in the decision appeal.
 - 9.6.4** Make a decision that ought to have been made by the RTMgrCB.
 - 9.6.5** Quash, verify or confirm the decision of the RTMgrCB or substitute or make a decision of its own.
- 9.7** An applicant may appeal on any questions of law, fact or both, from a decision or direction of the ASTTBC Council to the court at any time within thirty (30) clear days from the date of the decision or direction.

10.0 Reinstatement of Registration

Previous registrants applying to reinstate their registration must:

- 10.1** Complete a reinstatement application form.
- 10.2** Provide two copies of legal identification such as a Canadian passport, Canadian birth certificate, driver's license, Canadian citizenship card.
- 10.3** Successfully complete a Professional Practice and Ethics Exam, if not already completed.
- 10.4** Sign ASTTBC's Privacy Policy declaration.
- 10.5** Supply an up-to-date resume describing details of continuing education and work history.
- 10.6** At the discretion of the Registrar, provide two character references.
- 10.7** Archived files may be purged therefore an applicant may be required to supply additional information to ensure the application is complete and current before being considered for reinstatement.
- 10.8** There is no time limitation on submitting an application for reinstatement. However, applications for reinstatement of membership following a lapse of two or more years are required to provide evidence of remaining current in their field or be requested to complete professional development requirements.
- 10.9** Submit with the Application the current reinstatement Fee.
- 10.10** Prorated dues for the current year will be due and payable upon acceptance for reinstatement. There is no requirement to pay dues from the last year in which the applicant was registered.
- 10.11** The Registrar may waive or vary any or all of the Reinstatement fees.
- 10.12** All applicants for reinstatement will be considered by the RTMgrCB for review and decision.

11.0 Storage of Files

The Registrar shall maintain the complete file of all registrants who are struck, resigned or deceased.

Five (5) years following the member being struck, having resigned or becoming deceased the Registrar will remove and destroy by shredding all information from the file except for the following:

- 11.1** Application Form
- 11.2** Board Reviewers' Report forms
- 11.3** Registrar's letters of acceptance
- 11.4** Registrar's letter with respect to cancellation of registration
- 11.5** Any other significant correspondence

- 11.6** The Registrar will then place these files into long term storage. It is desirable and requested that staff retain information for as long as is reasonably practical.

12.0 Freedom of Information

- 12.1** Applicant's files are treated as confidential documents insofar as is practical, subject to the ASTTBC policy of privacy and the freedom of information and privacy laws of British Columbia.
- 12.2** Access to files is privileged to ASTTBC Registration Staff, the Board and designated file reviewers, or others as may be reasonably authorized by the Registrar. In exceptional circumstances the file may be disclosed, on a confidential basis, to external audit teams.
- 12.3** An applicant, or registrant, may apply to the Registrar for an appointment to view their file, excluding references during regular office hours. If refused, they have the right of appeal, within thirty (30) days, to the Council of ASTTBC.
- 12.4** The viewing of files by the applicant or registrant is during normal working hours. If the Registrar has cause to refuse, the matter shall be referred to the ASTTBC Council.
- 12.5** Files shall at all times be viewed by the applicant in the company of the Registrar or his/her appointed representative.

**Certification Requirements
for
Registered Technology Manager (RTMgr)**

The following requirements will be applied by the Registered Technology Manager Certification Board (RTMgrCB) when assessing applications for certification as a RTMgr.

1.0 General

Certification under this policy may be achieved if:

- a) In addition to being an ASCT or CTech, the applicant has a minimum of six (6) years of management experience during which the competencies, described herein have been achieved or
- b) The applicant has completed an approved education program and has a minimum of two (2) years of relevant management experience in a technical environment.

To meet the requirement for RTMgr or RTMgr (Provisional) a minimum of eighty percent (80%) of the primary and secondary competencies must be achieved. Achieving competency requires evidence that a minimum of seventy five percent (75%) of the indicators for each selected competency have been achieved by the applicant.

2.0 Competencies

2.1 Primary Competencies

For RTMgr certification, the applicant must achieve eighty percent (80%) of the Primary competencies (1-5).

- 1. Demonstrate leadership in a technical specialization.
- 2. Plan and manage human resource
- 3. Apply regulations and laws for business
- 4. Manage projects
- 5. Analyze and solve problems through appropriate decision making

2.2 Indicators Describing Primary Competencies

A competency shall be deemed to be achieved when a minimum of seventy five percent (75%) of the indicators within each competency are claimed by the applicant.

1 - Demonstrate leadership in a technical specialization

- 1.1 Distinguish between the roles and responsibilities of technical specialists and managers.

- 1.2 Describe issues, tasks and duties of technical specialists and managers.
- 1.3 Identify indicators of a personal transition from technical specialist to manager role.
- 1.4 Demonstrate skills needed by an effective leader / manager.
- 1.5 Demonstrate skills associated with each level of management.

2 - Plan and manage human resource

- 2.1 Apply human resource systems and processes designed for technology-based organizations.
- 2.2 Determine the organization's workforce needs and the selection process required to achieve those needs.
- 2.3 Motivate employees in the work setting of technology-based organizations.
- 2.4 Design and implement a career management program.
- 2.5 Conduct performance appraisal and training functions of an organization.

3 - Apply regulation and laws for business

- 3.1 List the sources of Canadian law.
- 3.2 Explain legal concepts and rules associated with tort, contract, employment, partnership and intellectual property.
- 3.3 Describe the general judicial process involved when a dispute is taken to court.
- 3.4 Describe the legal means of protecting technological innovations including licensing of use.
- 3.5 Explain the law and legal process related to ethical and moral considerations in business.

4 - Manage projects

- 4.1 Develop, build and coordinate work within effective project teams.
- 4.2 Plan and schedule projects, monitor and report progress, and systematically address project issues.
- 4.3 Recognize and act appropriately to the characteristics of different personality styles and cultures.
- 4.4 Use conflict management skills applicable to different behavior styles.
- 4.5 Apply fiscal monitoring, cost and budget control techniques when managing projects.

5 - Analyze and solve problem through appropriate decision making

- 5.1 Describe the problem solving process.
- 5.2 Identify and analyze the facts to solve a problem.
- 5.3 Explore and select alternate solutions.
- 5.4 Apply tools and techniques to solve problems.
- 5.5 Make effective decisions.

2.3 Secondary Competencies

For RTMgr certification, the applicant must achieve eighty percent (80%) of the Secondary competencies (6-10).

6. Apply fundamental accounting principles
7. Develop business strategy and structure
8. Communicate effectively in a technological environment
9. Conceive marketing strategies for technical products or services
10. Manage technological change

2.4 Indicators Describing Secondary Competencies

A secondary competency shall be deemed to be achieved when a minimum of seventy five percent (75%) of the indicators within each selected secondary competency are claimed by the applicant.

6 - Apply fundamental accounting principles

- 6.1 Describe accounting principles.
- 6.2 Explain and interpret the meaning of balance sheets and financial statements.
- 6.3 Describe the relationship between and applicability of both financial and managerial accounting.
- 6.4 Evaluate a company's financial condition.
- 6.5 Use financial statements and costs to make better management decisions.

7 - Develop business strategy and structure

- 7.1 Develop a business strategy and an assessment of company strengths, weaknesses, opportunities and threats.
- 7.2 Structure a team, organization or unit within the organization to enable it to take advantage of business opportunities.
- 7.3 Use life cycle models to evaluate business and technical impacts on product developments.
- 7.4 Formulate business strategies to include technological integration.

8 - Communicate effectively in a technological environment

- 8.1 Use appropriate tone, style and structure in written presentations.
- 8.2 Identify the desired outcome to select a communication form, recognizing its objective as technical, administrative or motivational.
- 8.3 Use communication persuasion techniques to achieve desired results.
- 8.4 Write effective technical proposals.

9 - Conceive marketing strategies for technical products and services

- 9.1 Create a strategic image and plans that tie into corporate objectives.
- 9.2 Define target market and customers.
- 9.3 Select brand planning to create a lasting image in the markets.
- 9.4 Identify a promotion strategy to communicate effectively with the target audience.

10 - Manage technological change

- 10.1 Demonstrate characteristics of a leader.

- 10.2 Use leadership in the change process.
- 10.3 Identify opportunities for change that will bring benefit to a business and manage the validation and need for that change.
- 10.4 Identify stakeholders impacted by organizational change.
- 10.5 Plan for change in context to the organization.

**Certification Requirements
for
Provisional Registered Technology Manager (RTMgr (Provisional))**

To be considered for Provisional status (RTMgr (Provisional)) a minimum of eighty percent (80%) of the primary competencies must be achieved through an education program or course of studies acceptable to the RTMgrCB.

- 1.0 A Provisional Registered Technology Manager (RTMgr (P)) is a registrant who has satisfied the RTMgrCB that in addition to being an AScT or CTech, he or she:
 - Is enrolled in an education program as described in section 4.4.2 acceptable to the RTMgrCB; or
 - Has successfully completed courses that are deemed to provide the primary competencies described in Appendix A; and
 - Has been actively managing some aspects of technology for a minimum of one (1) year.
- 2.0 Within five (5) years of certification as an RTMgr (Provisional), the registrant must achieve the education and relevant work experience requirements to become a RTMgr.
- 3.0 Upon achieving the requirements set out in Appendix A the registrant submit to the RTMgrCB a request for reclassification to RTMgr.
- 4.0 If after five (5) years from RTMgr (Provisional) certification, the member has not complied with Appendix A, the RTMgrCB may at its discretion withdraw the designation RTMgr (Provisional) until all requirements for reclassification as RTMgr are achieved.