ASTTBC Professional Practice Guideline – Biomedical Technology Services

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Preamble

Registrants are required to comply with the Professional Governance Act, its regulations, ASTTBC Bylaws, including ASTTBC's Standards of Competence, any relevant Guide to Professional Practice approved by the Board, applicable codes and standards of practice as well as other applicable municipal, provincial, and federal legislation relating to the practice of biomedical engineering technology.

Specifically, all registrants are required to understand and adhere to the following ASTTBC guidelines:

- Continuing Professional Development
- Professional Practice & Conduct, and
- Professional Seal

1.0 DEFINITIONS

Term	Definition
Registrant	a person who is granted admission, enrolment, or reinstatement in a class of registrants within a category of registration with ASTTBC.
AScT	a person who is certified and registered as an Applied Science Technologist with ASTTBC.
CTech	a person who is registered as a Certified Technician with ASTTBC.
Direct Supervision	the responsibility for the control and conduct of the engineering technology work of subordinates where required by ASTTBC bylaws or by other legislation.

2.0 PURPOSE

The Guide to Professional Practice for Biomedical Technology Services (the "Guide") has been adopted to support ASTTBC registrants in understanding the service areas and taking professional responsibility within their field. The Guide also aims to provide a definition of the scope of practice and legal limitations. While not exhaustive, the Guide provides a context for the type of technical functions, which a registrant may be qualified to carry out. The carrying out of additional professional services is permitted under this Guide, provided the services are consistent with the requirements of each project and this Guide. Independent professional services are permitted where allowed by law and as stipulated under this Guide, provided the services are consistent with the requirements of each project.

This Guide recognizes that ASTTBC registrants have attained, by virtue of a combination of education, training, and experience, competencies that enable them to apply known applied science and technology principles and techniques to provide solutions to problems of varying complexity within the ASTTBC definition of the scope of practice, this Guide, and other applicable jurisdictional laws.

A registrant generally works within a team of professionals, which may include technologists, technicians, clinical engineers, doctors, nurses, respiratory therapists, information systems and supply chain personnel, tradespeople, or other technical and administrative staff. There is no restriction on who may 'manage' professional services, with the understanding that the appropriate registered professionals are involved in carrying out the work.

A registrant may be the team leader of a project, which is more complex than the scope of practice contemplated by this Guide when responsibility is assumed by an appropriately qualified and registered professional. A registrant must be able to recognize any unique characteristics, which, due to their complexity or other issues, are beyond their field of expertise and require the involvement of another qualified professional, whether a registrant of ASTTBC or another professional regulator. Consideration of such matters is always critical when the risk to the public is as inherent and direct as it is in this profession.

3.0 AREA OF PROFESSIONAL PRACTICE

A registrant may be involved in providing professional services in the following areas:

- project management
- management of technical staff
- specification of maintenance and assessment programs for medical devices and associated technology
- technology assessment
- risk management
- installation and commissioning of medical devices
- preventative maintenance and repairs
- equipment and parts procurement for medical devices
- developing specifications
- research and development
- teaching and mentoring
- technical sales

A registrant shall take note of practice restrictions incorporated in other professional legislation and govern themselves accordingly.

4.0 BIOMEDICAL TECHNOLOGY SERVICES

This Guide recognizes the services that ASTTBC registrants have traditionally carried out in the provision of biomedical technology services. Under the authority of the Professional Governance Act, ASTTBC's bylaws, and this Guide, a registrant may carry out one or more of the services itemized under Section 3.0.

A registrant may be involved at all levels of the medical technology management process, including:

- Preventive maintenance of the medical technology including its repair and calibration.
- Monitoring and ongoing assessment to ensure safe effective and efficient use.
- Aspects of medical technology management include but are not limited to, "equipment end of life" and decommissioning of equipment due to age, serviceability, and cost of replacement.

- Aspects of medical technology management related to inventory management, and measurement of medical clinical effectiveness.
- Initial needs assessment and pre-purchase evaluation of medical technology and supplies
- Consultation on medical technology issues with clinicians and other members of the healthcare team including administration.
- Participation in the implementation of strategies in clinical areas; and
- Regular and frequent interaction with the clinical staff and patients to provide a safe, effective, and comfortable medical technology environment.
- Developing standards of practice in the field of biomedical engineering
- Aspects of planning and dealing with all facets of renovation and redevelopment of hospitals, clinics, and care facilities including the evaluation of equipment to ensure that it is safe for the environment, meets the specifications required, and fits within the budget of the project.

5.0 CONTINUED PROFESSIONAL DEVELOPMENT (CPD)

Registrants must ensure that they are continuously updating and advancing their knowledge, skills, and competence through continued education and professional development studies. Continuing education requirements include, but are not limited to, training, workshops, certifications, and other requirements to support professional development in areas of practice, ethics, and competence. It is mandatory for a practising registrant to complete CPD requirements as detailed in ASTTBC Bylaws, Part VI, Schedule E, and the Continuing Professional Development Guideline.

6.0 STAMPING

In accordance with section 84 of ASTTBC's bylaws, temporary and practising registrant in good standing are authorized to affix their professional seal, with signature and date, to all designs, reports, specifications, or other documents that may require a seal, either as required by law or ASTTBC practice guidelines. Where such work is a part of a total service or product, the registrant will qualify the application of the seal concerning which portions of the work have been undertaken without supervision.

Where a registrant has completed work under direct supervision, the registrant may affix their seal only for those aspects of the work completed by the registrant. The supervising professional will affix their seal clearly noting their role as the professional providing direct supervision.

Registrants are required to understand and adhere to the Professional Seal Guideline.

7.0 PROFESSIONAL LIABILITY

ASTTBC registrants are required to hold paramount the safety, health, and welfare of the public, the protection of the environment, and the promotion of health and safety within the workplace. It is the responsibility of the ASTTBC registrant to ensure that adequate professional liability (E&O) insurance is in place. In accordance with section 86 of ASTTBC Bylaws, registrants must carry and maintain professional liability insurance either through the employer or a third-party organization. In keeping with section 86.1 of ASTTBC's bylaws, before entering into an

agreement to provide applied science and engineering technology services, registrants must provide written notification to their clients of the status of their professional liability insurance and confirm whether it covers the services to be provided. Registrants must also request the client to provide a written acknowledgment of receipt of the written notification.

8.0 PROFESSIONAL GOVERNANCE ACT AND ASTTBC BYLAWS

In February 2021, the *Applied Science Technologists and Technicians Act* was repealed and ASTTBC was continued as a regulatory body under the Professional Governance Act. As a regulatory body under the Professional Governance Act, ASTTBC has the duty to serve and protect the public interest concerning the conduct of its registrants and exercise its powers, and discharge its responsibilities in the public interest. ASTTBC is subject to the oversight of the Office of the Superintendent of Professional Governance (OSPG), which operates under the Ministry of Attorney General.

ASTTBC's bylaws create various registration categories, including practising and trainee, as well as requirements for maintaining registration with ASTTBC in good standing. ASTTBC is responsible for ensuring that registrants conduct themselves in a professional, competent, and ethical manner in the provision of services to the public. This includes by creating and disseminating practice guidelines, standards of competence, and a Code of Ethics to ASTTBC registrants with which registrants must comply. This practice guideline should be read in conjunction with section 85 and Schedule D of ASTTBC's bylaws.

In accordance with the Professional Governance Act and the ASTT Regulation, registrants of ASTTBC are permitted to engage in the regulated practice of applied science technology. They are granted exclusive use of reserved titles. In accordance with the ASTT Regulation, registrants of ASTTBC have exclusive use of the titles of Applied Science Technologist (AScT), Applied Science Technologist Trainee, Certified Technician (CTech), Certified Technician Trainee, and Registered Technical Specialist (RTS).

9.0 LIMITATIONS

Every effort has been made to ensure the accuracy and completeness of this Guide. Any error or omission does not relieve a registrant from making decisions and assuming professional responsibility appropriate to the circumstances.

REFERENCES

The following documents are suggested as reference material:

1. Professional Governance Act and ASTTBC Bylaws
2. CSA C22.1:2- Canadian Electrical Code
3. CMBES Clinical Engineering Standards of Practice
4. CSA Z32-15- Electrical safety and essential electrical systems in healthcare facilities
5. ISOIEC60601-1-Medical Electrical Equipment
6. ISO 13485- Medical Devices – Quality Management Systems
7. ISO 14971- Medical Devices – Application of Risk Management to Medical Devices
8. World Health Organization Medical Equipment Maintenance Program Overview (current edition)

9. ASTTBC Continuing Professional Development Guideline
10. ASTTBC Professional Practice & Conduct Guideline
11. ASTTBC Professional Seal Guideline
12. Other ASTTBC Guides to Professional Practice in related practice areas
13. Other applicable codes and standards

REVISION HISTORY

- Approved by ASTTBC Council September 27, 2007
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- Revised January 23, 2020, for Council Approval
- Approved by ASTTBC Council on January 23, 2020
- Revised May 6, 2021, to incorporate PGA and ASTTBC bylaws information.
- Revised August 2021 for Council Approval
- Approved by ASTTBC Council on September 30, 2021
- Revised November 2023, to incorporate updates to ASTTBC Guidelines and bylaws and reviewed for consistency with ATTBC EDI policy.