

# Accreditation

## Program Research Report



**FPSC**



FOOD PROCESSING SKILLS CANADA    COMPÉTENCES TRANSFORMATION ALIMENTAIRE CANADA

Available online at [www.fpsc-ctac.com](http://www.fpsc-ctac.com)

This project is funded by the Government of Canada's Sectoral Initiatives Program

© Copyright 2019 Food Processing Skills Canada (FPSC)

Food Processing Skills Canada (FPSC) is formally known as Food Processing HR Council (FPHRC)

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, or stored in a database and retrieval system, without the prior written permission of the Food Processing Skills Canada (FPSC).

The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

Food Processing Skills Canada (FPSC)

201-3030 Conroy Road  
Ottawa (Ontario) K1G 6C2



# Table of Contents

Overview.....	1
Research Requirements (per the contract).....	1
Summary of Recommendations.....	2
PART 1: Accreditation Overview .....	4
PART 2: Accreditation Program Research.....	5
PART 3: Accreditation Program Required Elements.....	8
Governance model.....	8
Accreditation Board Structure.....	9
Communications/marketing strategy .....	10
Accreditation model .....	10
Understanding Risk.....	11
Elements to be addressed through accreditation.....	12
Organization-centric evaluation .....	13
Quality management practices specific to training .....	14
Content and Execution-centric accreditation.....	14
What types of training should be accredited?.....	14
Accredit training pertaining to any competency in the FPSC LRF framework.....	15
Accredit training related to specific qualifications or credentials.....	15
Training related to specific, employer-identified competencies.....	15
Evaluating learning objectives designed into training programs .....	17
Evaluating the materials/media/environment used to deliver the learning .....	18
Evaluating how learning objectives are measured or tested.....	18
Evaluating instructor qualifications.....	18
Evaluating Training Delivery .....	20
Evaluating Training Resources and Infrastructure .....	20
PART 4 - Suggested Accreditation Model .....	21
Price Considerations for the Model .....	22
Conclusions: .....	24
Appendix A: ISO Standards Overview .....	26
Appendix B: Instructor Competency Standards Overview .....	28
Appendix C: Bloom’s Taxonomy .....	31
Appendix D: Example Course Mapping Matrix.....	35
Appendix E: Example Course Materials Review.....	36



### Overview

Employers in the food processing industry have indicated difficulty in hiring workers with the necessary skills, as well as difficulty in determining if particular training programs (whether offered by publicly funded educational institutions or private education/training providers) meet industry requirements. The FPSC “Learning and Recognition of Skills Framework “(LRF) was developed to help address these issues.

One need expressed by employers was for a better way of evaluating the many training options offered to the industry, as well as a more reliable measure of the skills/competencies possessed by graduates from these programs. An accreditation program will help address this issue.

### Research Requirements (per the contract)

1. Secondary research (environmental scan) to understand accreditation models in use in other sectors, analyzing their structure, characteristics, and applicability to the food processing sector.
2. Review the previous research conducted on behalf of the client to inform the decision to move forward with accreditation, to determine what may have changed since then, what new factors may need to be considered, etc.
3. Conduct primary research with industry stakeholders (client, employers, training providers, instructors) to familiarize ourselves with:
  - a. Expected type(s) of training (complexity, level of learning, etc) to be accredited
  - b. The expected volume of training (number of courses, number of training providers etc)
  - c. Constraints (time, cost, personnel) that will influence accreditation program design
  - d. Any other considerations for the final design

**NOTE: Step 3 will be conducted in collaboration with FPSC and SMEs from industry following the acceptance of this report.**



### Summary of Recommendations

#### **Recommendations 1:** Governance

**1A:** In parallel with program development, an independent accreditation board should be recruited.

**1B:** Recruiting and initial setup of the accreditation board should begin immediately now (i.e., no need to wait for the program to be developed to begin the governance setup).

#### **Recommendations 2:** FPSC Staffing Levels.

**2A:** A review of FPSC staffing levels should be undertaken to ensure sufficient resources are available to support the accreditation program.

**2B:** FPSC staffing policies – particularly with respect to reporting structures and responsibilities - should be reviewed and revised as necessary to ensure the independence of the accreditation program from training, certification, and other functions.

#### **Recommendation 3:** Marketing/Communication

FPSC should begin immediately to develop and deploy a marketing/communication strategy, with the goal of raising awareness of the accreditation program.

#### **Recommendation 4:** Additional Primary Research Small/Private Provider Impacts

**4A:** FPSC should undertake additional primary research with small/private training providers to determine the impact and feasibility of organization-centric evaluation on their participation in the accreditation program.

**4B:** FPSC should undertake additional primary research with training providers to determine the possible impact that verification of training-specific quality management practices will have on their participation in the accreditation program.

#### **Recommendation 5:** Focus of Accreditation

FPSC should focus on specific, employer identified bundles of skill/competency OR specific certifications/credentials as the basis for the accreditation program. Note that this does not preclude adding additional elements (up to the entire Learning and Recognition Framework) to the program over time.



### **Recommendation 6:** Mapping Learning Objectives to Competencies

Training providers should conduct their own mapping of learning objectives to competencies, at a module by module level, and submit this for evaluation.

### **Recommendation 7:** Instructor Standards

The program should provide multiple methods of demonstrating adherence to a meaningful, measurable standard for instructor competency. These different approaches should be clearly articulated as part of the accreditation process.

### **Recommendation 8:** Determining Quality of Instructional Delivery

FPSC should conduct additional primary research with industry and training providers to determine acceptable methods for verifying the quality of instructional delivery.

### **Recommendation 9:** Site Audits

**9A:** Site audits should not be conducted as part of the accreditation process. Instead, it is recommended that the program require an attestation from the training provider that lists the resources available to deliver their training program, and that these are adequate to ensure quality standards are met.

**9B:** Site audits could be conducted in response to complaints with respect to a particular accredited training program (i.e., post-accreditation). The processes and circumstances that would trigger a site-audit, as well as responsibility for the costs of conducting the audit, must be clearly articulated in the accreditation contracts.

### **Recommendation 10:** Program Costing/Pricing

**10A:** FPSC should conduct additional primary research with training providers (post-secondaries, private providers, internal/employer providers) to determine their degree of price elasticity/price sensitivity for an accreditation program as it relates to specific types of training.

**10B:** Detailed estimates of the cost of conducting accreditation activities should be undertaken as part of the development and pilot in order to determine an accurate “break-even” point for the program. This will ensure that pricing is adequate to sustain the program post-launch.



### PART 1: Accreditation Overview

**Accreditation:** *The process whereby an association or agency grants public recognition to a school, institute, college, university, or specialized program of study having met certain established qualifications or standards as determined through initial and periodic evaluations*

**Accreditation can help industry mitigate risks when addressing training requirements.** While accreditation can't guarantee training outcomes, it can serve as a signal for quality when making decisions over which courses, programs and providers to engage.

**Accreditation is often associated with (although separate from) certification.**

Some credentials (i.e., licenses) are mandatory – one cannot practice without. Examples of this include the credentials of “right to practice” professions: Professional Engineers (P.Eng), Chartered Professional Accountants (CPA), numerous certifications in the medical profession (doctors, nurses, x-ray technicians), among others.

However, the vast majority of credentials/certifications are voluntary. Some voluntary certifications (Project Management Professional (PMP), Certified Professional in Human Resources (CPHR) are notable examples) are recognized by employers to the extent that they have become *de facto* mandatory to work in certain roles.

Voluntary credentialing serves as a risk reduction strategy for employers, who use particular certifications or credentials as a signal that a candidate possesses certain skills and competencies that are desirable. In effect, credentials are a “label” that tells an employer “what’s in the box” when deciding if an individual has the required skills for a role.

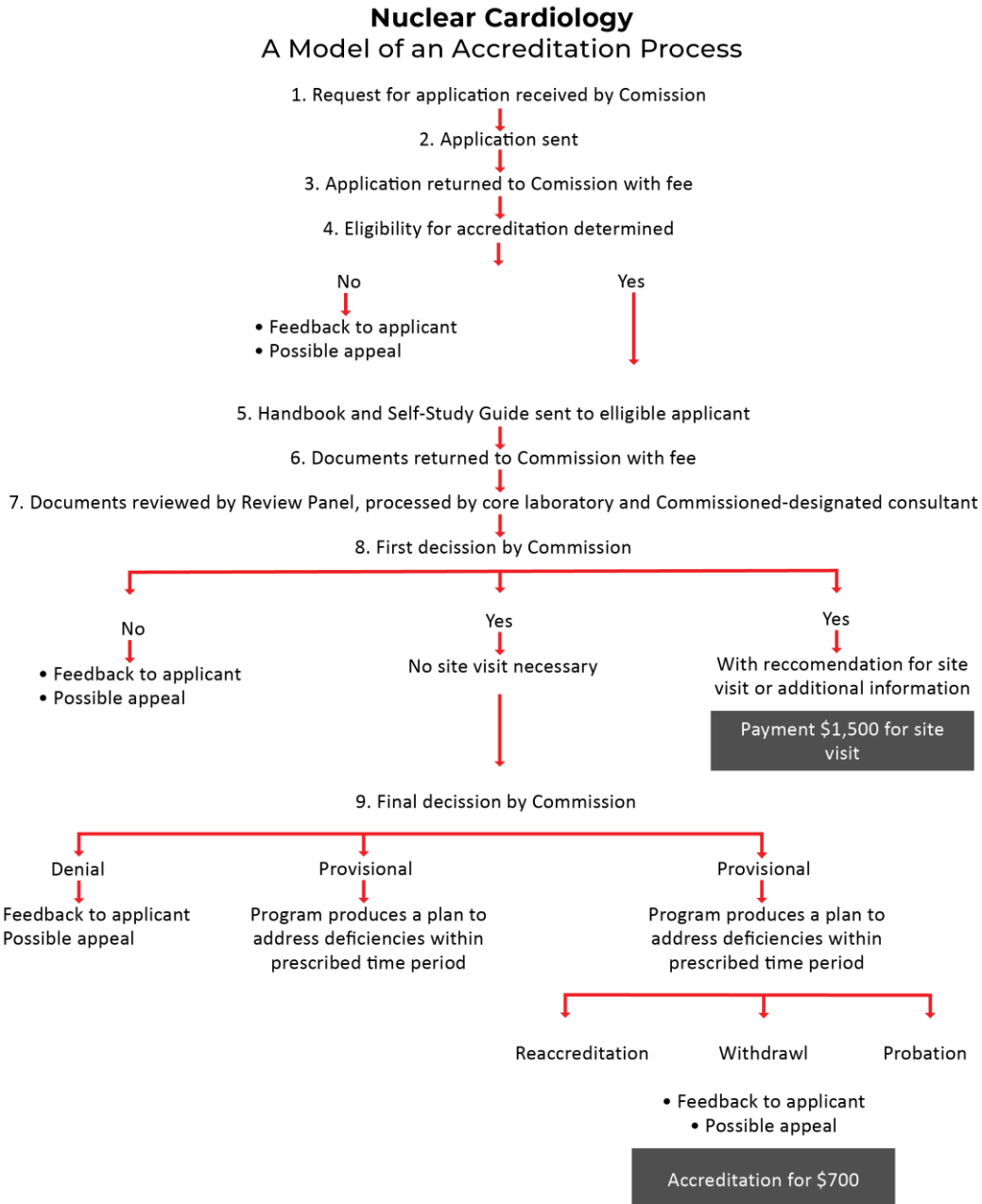
Generally, certification programs require that individuals present evidence of some combination of defined education/learning and demonstrated performance/experience in order to gain the credential. Accreditation is a means of determining if particular training courses/programs satisfy the learning requirements of the credentialing scheme.

In high-risk, right-to-practice occupations that require licensing (i.e., mandatory certification), it is common practice to restrict eligibility for licensing to individuals who have received their training through accredited courses/programs.



## PART 2: Accreditation Program Research

Dr. Joan Knapp, Ph.D., is a US-based expert who assists credentialing agencies and professional associations to develop and implement certification and accreditation programs. In a paper<sup>1</sup> published for the American Society of Association Executives, Dr. Knapp presents a flowchart for the steps in a typical accreditation program (figure 1 below). Although the guide was published almost 20 years ago, and aspects of the model could be handled electronically today, the key elements are still applicable – although the fees associated with accreditation seem miniscule - in late 2019.



<sup>1</sup> Knapp, J.E. Designing Certification and Accreditation Programs. Compiled in The Association Executive’s Toolkit, American Society of Association of Executives, 2000





We reviewed a number of current accreditations programs to determine elements common across different programs. Programs reviewed included:

### Industry/Professional Accreditation Programs

- ECO – Academic Program Accreditation
- CSCSC – National Accreditation Program
- CAHPI – National Certification Program (Accrediting Training to certification requirements)
- ACBOA – National Certification Program (Accrediting training to certification requirements)
- CMC Canada – Accreditation of training against the CMC Certification Program

### Institutional Accreditation Programs

- ACCET – Accreditation of Post-secondary institutions (US)
- Australian Skills Quality Authority – Accreditation of Courses For Delivery By Registered Training Organizations (RTO) for Vocational Education and Training programs (Australia)
- Accreditation Canada – Accreditation of health education, and health and social services organizations

The results of the review are summarized in the table below.

Agency	Target	Elements Included	Cost?
Accreditation Canada	Health education	<ul style="list-style-type: none"> <li>•Processes/practices for quality and safety</li> </ul>	<ul style="list-style-type: none"> <li>• Unknown (presumed to be \$50K+</li> </ul>
Accrediting Council for Continuing Education & Training (ACCET)	US post-secondary institutions offering cont. ed. Programs	<ul style="list-style-type: none"> <li>•development and implementation of institutional and program goals focused on a continuing education mission;</li> <li>•Comprehensive, analytic self-evaluation review and report by the institution (capability);</li> <li>•On-site professional peer review</li> <li>•Independent review and decision by the Accrediting Commission</li> </ul>	<ul style="list-style-type: none"> <li>• Unknown, but presumed to be at least \$50K</li> </ul>
Australian Skills Quality Authority	Registered Training Organizations (RTO) that provide services for Vocational Education and Training programs	<ul style="list-style-type: none"> <li>• Content mapping to requirements in the Australian Qualifications Framework</li> </ul> <p>NOTE: organizations submitting this application are already RTOs; as such, they have been vetted by the ASQA for their viability etc.</p>	<ul style="list-style-type: none"> <li>•\$A 7570 with application</li> <li>•Renewal is \$A 500 to open the dossier, with \$A 7570 invoiced once the renewal dossier is opened</li> </ul>



## Accreditation Program Research

We also reviewed guidelines for the development of accreditation programs published by the (now defunct) Alliance of Sector Councils (TASC)<sup>2</sup>. Suggested criteria to ensure a quality accreditation program are:

Criteria	Guideline for compliance
Accessible, Equitable, and Fair	All individuals should have equal access to relevant information and the opportunity to participate effectively
Coherence and Rigour	Information should be developed and presented in a logical, rigorous, and consistent manner.
Confidentiality	Information should be accessible only by those authorized to have access
Consensus	A consensus process should be used to make decisions. Consensus is defined as general agreement, characterized by the absence of sustained opposition to substantive issues by any relevant stakeholder and by a process that seeks to take into account the views of all relevant stakeholders and to reconcile any conflicting arguments. Consensus implies much more than a simple majority, but not necessarily unanimity
Current, Relevant, and Valid	Information should be credible, applicable, and up to date.
Harmonization	Harmonizing with existing relevant national and international policies, procedures, and requirements helps to ensure consistency and quality. It supports greater labour mobility across pan-Canadian markets and the recognition of foreign credentials. Where harmonization is achieved, effort should be made to establish liaison arrangements with the originating organization in order to keep it informed of any changes made.
Impartiality and Independence	Decisions should be based on objective criteria, rather than bias, undue influence, or prejudice
Openness and Transparency	Stakeholders should have the opportunity to be engaged, and the information provided to stakeholders should be open and transparent. An open and transparent process allows all individuals to participate effectively. In an open and transparent process, the roles of stakeholder groups are clearly defined, the process to be followed is clearly communicated, and the details of how the resulting information will be used are shared with all involved. Openness is access to or disclosure of information.
Representative	The process should be inclusive, not exclusive. All individuals with a significant interest in the issue should be involved. Acceptance of the diverse values, interests, and knowledge of individuals involved is essential.
Sustainability	Commitment and sufficient resources are essential to continue and prosper
Voluntary	Individuals who are affected or interested participate voluntarily and the outcome is voluntarily applied

<sup>2</sup> The Alliance of Sector Councils (TASC); Canadian Standards Association (CSA) – “Setting the Standard”, Ottawa 2011. p25



### PART 3: Accreditation Program Required Elements

From this research, certain common requirements for accreditation programs emerge:

#### Governance model

All accreditation programs require an overarching governance structure that ensures it is transparent, rigorous, and effectively administered.

#### Based on the research, a few best practices are apparent:

1. An independent “accreditation board” should oversee the program. This could be made up of volunteers from industry, provided they are properly trained and oriented
2. Accreditation programs should be “arms-length” from training programs to avoid the appearance of conflict of interest; that is, the same agency (at the least, the same individuals in that organization) should not be involved in both delivering training, and accrediting training provided by other providers. This may require changes to the internal organization, staffing and/or responsibilities at FPSC
3. Sufficient resources must be provided to ensure the effective and efficient running of the program (the same comment applies as at point 2)

Initially (i.e., as part of a pilot), the accreditation could be executed within the FPSC organization; however, once processes are established and the program is ready to scale, the governance should shift to a fully independent accreditation body once the program is running (we would anticipate this to be approximately 1 year after launch).

### Recommendations 1: Governance

**1A:** In parallel with program development, an independent accreditation board should be recruited.

**1B:** Recruiting and initial setup of the accreditation board should begin immediately now (i.e., no need to wait for the program to be developed to begin the governance setup).

As the development of the accreditation program continues, there will be a requirement for staffing. Initially (i.e., during a pilot) this would be provided from within FPSC; as the program scales up, it may be necessary to transfer staff from FPSC to the independent accreditation body described above (or else they will need to hire their own resources). It may be possible for FPSC to provide administrative services to the accreditation board; this should be done on a cost-recovery basis, and any legal/liability ramifications stemming from this service should be reviewed by legal counsel.



### Recommendations 2: FPSC Staffing Levels.

**2A:** A review of FPSC staffing levels should be undertaken to ensure sufficient resources are available to support the accreditation program.

**2B:** FPSC staffing policies – particularly with respect to reporting structures and responsibilities - should be reviewed and revised as necessary to ensure the independence of the accreditation program from training, certification, and other functions.

It is important not to wait until program development is completed to recruit personnel for the accreditation board and review staff, as this will create a significant delay in testing the program. It is far better to begin recruiting necessary positions immediately.

### Accreditation Board Structure

The accreditation board should be of manageable size and have a legal structure that separates it from FPSC. Salient details are as follows:

- Independent non-profit corporation
  - Chair, and 4-6 directors (one of whom would be “vice chair”)
    - A maximum of 5-7 people (total) on board, made up of:
      - 2-3 reps from employers (large, med, small; and/or different industry segments)
      - 2-3 reps from training providers (public sector, private sector, employers (in-house training))
      - A “public representative”, not affiliated with any of the other representative groups.
    - Administration support (initially from FPSC) including an “accreditation manager” and at least one “clerk/administrator” to support the board and provide the administrative and operational capability in support of the accreditation program. This would include liaising with accreditation candidates (i.e., training providers), managing SME reviewers, ensuring adequate record keeping and document protection processes are in place, etc.)
    - SME reviewers. The exact number will need to be determined based on the scope and scale of the accreditation program. As a starting point:
      - At least 2 SMEs should be appointed for each type of review. There will be more required for curriculum review
        - SMEs must be trained in the specific processes for accreditation
        - SMEs should be able to make technical judgement on the content being reviewed (particularly for curriculum)



**NOTE:** In addition to administrative staffing, it is important to obtain competent legal support for the accreditation program, on an as-required basis, to advise on:

- Accreditation contract language and structure
- Risk/liability exposure stemming from accrediting particular types of training
- Legal review of bylaws, director/board indemnity, policies, processes etc. to ensure the program is on sound legal footing.

*As legal assistance is unlikely to be available from FPSC staff, sufficient funding must be budgeted on an annual basis to cover this critical external service.*

### Communications/marketing strategy

In order to ensure the success of the accreditation program, it is important to “get the message out” well ahead of the program launch in order to:

- create initial demand, both from employers (the consumers of training) and the training providers (the suppliers of training),
- establish the authority of the accreditation body (and FPSC) as the program developer, as well as reinforcing the role of FPSC as the “guardian of standards” for the industry, which furthers the mandate to develop and administer the program.

### **Recommendation 3:** Marketing/Communication

FPSC should begin immediately to develop and deploy a marketing/communication strategy, with the goal of raising awareness of the accreditation program.

### Accreditation model

There are a number of elements for the proposed accreditation program that should be addressed, including:

- a. The specific elements to be addressed by accreditation
- b. The types of training to be accredited
- c. The types of training providers that will be eligible for accreditation
- d. The “risk profile” associated with decisions on a through c above.

Of these, the most important to understand is risk profile.



### Understanding Risk

As noted previously, accreditation is a mechanism that allows the purchaser of training to lower their risk by providing a “warranty” on the quality of a training program, as well as some assurances as to the specific competencies that the program will deliver.

Some competencies in the FPSC learning and recognition framework relate to tasks/jobs/activities where there is significant risk of physical or financial harm if they are not performed competently. This could mean

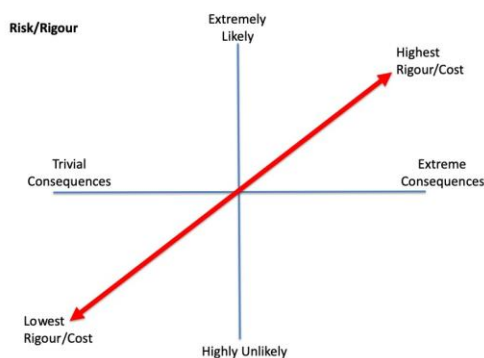
- harm to the individual performing the task
- harm to other workers in the vicinity
- damage to plant/equipment
- harm to consumers of the product being manufactured

Any of these factors can result in significant financial cost to employer. Employers are thus motivated to seek accredited training for activities where the cost of incompetence (and therefore their risk) is high.

However, the higher the risk of the activity, the greater the level of rigour necessary when accrediting training, and increased rigour translates to increased cost.

#### How do you determine “risk”?

The “risk” associated with a particular activity can be thought of as the ‘probability of something going wrong’ multiplied by the ‘consequences if it does’. This can be illustrated on the graph below.



#### For example:

Sanitation – cleaning of food processing equipment – must be done using proper techniques and products in order to ensure that no contamination is transferred to food. The probability of error is moderately high (there are specific techniques that must be learned, and specific chemicals etc. that must be utilized in accordance with the manufacturers’ procedures in order for them to eliminate contamination) while the consequences of failure (people can get very sick, or even die; product recalls, loss of reputation in the market, etc.) can be extreme.



For this activity, the rigour of accreditation must be HIGHER than for other activities – say effective communication (if this is done incorrectly, people might get annoyed or angry, but the odds of people being seriously harmed seem slim) – rigour can be lower.

An informal survey of the project advisory committee revealed the following:

Topic	Priority (Mark the appropriate box)									
	1 (Low)		2		3		4		5 (High)	
	Resp	%	Resp	%	Resp	%	Resp	%	Resp	%
Industrial Hygiene	0	0%	0	0%	0	0%	1	10%	9	90%
Food Safety	0	0%	0	0%	1	10%	1	10%	8	80%
Food Science	2	22%	2	22%		0%	4	44%	1	11%
General Safety	0	0%	1	11%	3	33%	1	11%	4	44%
GMPs	1	11%	1	11%	2	22%	4	44%	1	11%
"Soft" Skills	1	10%	3	30%	2	20%	2	20%	2	20%
Management Skills	1	10%	3	30%	2	20%	3	30%	1	10%
Supervisory Skills	1	10%	3	30%		0%	5	50%	1	10%
Regulations	1	10%	2	20%	4	40%	2	20%	1	10%
Plant Operations	0	0%	3	30%	4	40%	2	20%	1	10%
Production Skills	0	0%	4	40%	3	30%	3	30%		0%
Maintenance Skills (troubleshooting, PLC programming, etc.)	0	0%	6	60%	1	10%	1	10%	2	20%
Other(s) (please indicate)	0	0%	0	0%	0	0%	1	100%	0	0%

Based on these survey results, it appears that the industry desire is for the accreditation program to focus on higher risk items (like sanitation).

While accrediting these higher-risk items will result in higher costs to training providers (accreditation will require more extensive and detailed review, which takes more time, which equates to higher cost), the value of accreditation to both employers and training providers is also higher; training providers will be willing to pay more for accreditation because it should attract more students or result in higher corporate sales. In addition, the cost of accreditation can be passed on to the consumer (employers), who should be willing to pay a premium for accredited training, since it should reduce their risk.

### Elements to be addressed through accreditation

There are a number of possible steps or elements in the accreditation process. These include:

- Organization-centric evaluation, which can include verifying
  - Organizational “legitimacy” (i.e., financial stability, legal structure, governance etc.)
  - Management/ operations practices
  - Administration practices



- Quality management practices specific to training, including:
  - Processes for training design, development and delivery
  - Processes for managing training programs
- Content-centric accreditation, which can include evaluation of:
  - Learning objectives designed into training programs
  - Suitability of learning materials to support learning objectives
  - Testing and evaluation processes to ensure learning objectives are achieved
- Execution-focused evaluation which can include
  - Instructor qualifications
  - Ensuring quality delivery (usually through an on-site evaluation/audit of a course)
  - Suitability of training resources and infrastructure

The different elements are detailed below.

### Organization-centric evaluation

In Canada, all public post-secondary education institutions (and, in many jurisdictions, private “career colleges”) require accreditation from the ministry of education in the province or territory where they operate. The provincial/territorial accreditation process covers the organization, governance, management, financial integrity, infrastructure, and often quality processes for instructional development and delivery.

Assuming that the parameters of government-mandated accreditation are available, and assuming that they are at least as rigorous as anything that would be demanded by this accreditation program, then any organization that has been accredited by government can be granted a blanket equivalency for these requirements.

This is not the case for smaller independent training providers, as well as internal training organizations at the employer level – both of which are envisioned within the scope of this accreditation program. It may be difficult to balance the need for rigour with the costs associated with maintaining that rigour, which may result in smaller providers being priced out of the market.

If larger, government-chartered training providers are able to effectively deliver all of the skills the industry requires, then there may be no need to include anyone else in the program. However, the likelihood is that certain “niche” training requirements are currently being supported by these smaller organizations.

A number of external standards address the sort of general quality management requirements for training providers, and these can serve as references for developing the accreditation program these include:

- ISO 29993 which addresses “Learning Services Outside Formal Education” – i.e., NOT post-secondaries
- ISO 21001, which addresses “Education Organization Management Systems”. This standard has applicability across a wide range of target groups, from kindergarten through post-doctoral education, lifelong and continuous learning, and vocational training, as well as any learning methods, from traditional instructor-led to various forms of distance and on-line learning





While we don't recommend demanding ISO-level standards for management, these can serve as useful references. Of course, any training provider that is accredited to these ISO standards can be granted equivalency within our program.

**Additional details on these ISO standards are located at Appendix A**

### Quality management practices specific to training

Many of the same issues/challenges noted above are also present for this element. While larger, government sanctioned providers will likely have all of the elements in place and verified, smaller operators may not.

### **Recommendation 4:** Additional Primary Research Small/Private Provider Impacts

**4A:** FPSC should undertake additional primary research with small/private training providers to determine the impact and feasibility of organization-centric evaluation on their participation in the accreditation program.

**4B:** FPSC should undertake additional primary research with training providers to determine the possible impact that verification of training-specific quality management practices will have on their participation in the accreditation program.

### Content and Execution-centric accreditation

According to Knapp<sup>3</sup>, accreditation of training has a number of desirable outcomes, including:

- Recognizing training program performance and outcomes, thus motivating programs to comply with standards
- Increasing confidence in education or training programs
- Providing a minimum set of curriculum requirements
- Helping to define the content of the profession and scope of practice
- Increasing the credibility of a profession/occupation
- Ensuring consistency of training outcomes

### What types of training should be accredited?

Accrediting training content presents three distinct options; accreditation could be applied to:

1. any competency in the FPSC Learning and Recognition of Skills Framework (LRF);
2. training that is specific to industry-recognized credentials, certifications or qualifications; or
3. training that is related to employer-identified, in-demand competencies.

---

<sup>3</sup> Knapp J.E, Op.Cit, p.4



Accredit training pertaining to any competency in the FPSC LRF framework

While there is a case to be made for developing an accreditation program that applies to any competencies in the FPSC Learning and Recognition of Skills Framework in order to be inclusive and cover as many options as possible, there is a real danger that doing so would strain resources, and result in a program with insufficient focus to gain traction in the marketplace.

We believe that it makes more sense to limit the scope of accreditation – certainly in the initial stages – to a smaller, more focused array of competencies. This will allow both employers and training providers to easily embrace the program.

Accredit training related to specific qualifications or credentials

Many professional disciplines (law, medicine, business, etc.) have developed educational standards or curriculum guidelines that are used to inform the courses or programs offered in postsecondary institutions. Often, these disciplines create certifications or credentials that indicate proficiency in one or more aspects of the profession. If these are then tied to specific knowledge or skills, then accreditation of education and training often follows.

However, if such credentials exist in the food processing sector, and there is sufficient demand for accreditation, then it is logical that the applicable certifying/credentialing bodies would be undertaking accreditation independent of this initiative. Because of the authority vested in the certifying body, this strategy has merit only for that agency. Pursuing a parallel accreditation path cannot succeed without the compliance of the certifying body, and so this option does not appear to be feasible at this time.

Training related to specific, employer-identified competencies

Whether or not a specific credential or certification is developed, the key to a successful accreditation program lies in employers' recognition that graduates from particular courses/programs will possess required skills/competencies/capabilities. To the extent that graduation from these programs will result in a higher probability of desirable employment, then students will enroll in the program; this creates the market for accreditation.

### **Recommendation 5:** Focus of Accreditation

FPSC should focus on specific, employer identified bundles of skill/competency OR specific certifications/credentials as the basis for the accreditation program. Note that this does not preclude adding additional elements (up to the entire Learning and Recognition Framework) to the program over time.

As noted from the advisory committee survey, the preference appears to be to accredit training in higher-risk areas.



Regardless of the types of training that is being accredited, this stage will involve verifying:

- Learning content evaluation, which includes:
  - learning objectives designed into training programs (this is determined through mapping, generally conducted by the training provider, and verified by the accreditation body)
  - Suitability of learning materials to support learning objectives (again, supplied by the training provider, and verified by the accreditation body)
  - Testing and evaluation processes to ensure learning objectives are achieved
  
- Execution-focused evaluation which can include
  - Instructor qualifications
  - Ensuring quality delivery (usually through an on-site evaluation/audit of a course)
  - Suitability of training resources and infrastructure

### A Note on “Competency” vs “Time” as a Metric for Learning

Post-secondary education in North America is commonly evaluated on the basis of “Credit Hours”, “Contact Hours/Student Hours”, or “Carnegie Units”

These terms have been in common use in North American higher education for comparing courses and programs between different institutions since the early part of the 20<sup>th</sup> century. These are time-based units, reflective of the amount of time spent in class. A Carnegie Unit<sup>1</sup> is (nominally) equivalent to 120 hours of time spent in class over the course of a year.

Student Hours (Contact Hours) are roughly 1/10<sup>th</sup> of a Carnegie Unit, or 1 hour of class/lecture time for a student, per week, over a semester.

As mentioned, these measures were developed in the late 19<sup>th</sup>/early 20<sup>th</sup> century as a means of comparing education. The presumption is that more time means more learning, and that an hour spent in a class at “Institution A” is the same as an hour spent in “Institution B” – which may or may not be the case.

Competency-based measurements are only concerned with objective measures of student knowledge and/or skill as terminal objectives in a learning environment. Time is (largely) irrelevant.

The Carnegie unit persists for a number of reasons. First, it’s relatively simple to measure. Second, many education systems (for example, the Ontario Ministry Education’s “Ontario Qualification Framework”) rely on time as a means of separating types of academic credentials, and this impacts institutional funding.

***However, for an accreditation system that is aimed at addressing specific industry concerns around skills/competency, we do not believe that the Carnegie Unit and its derivatives are an appropriate metric for evaluating learning.***



Time spent in training can be a useful criterion for sorting between providers of similar programs; all other things being equal, the program that delivers the required competencies in the shortest time may be preferred.

### Evaluating learning objectives designed into training programs

The learning objectives designed into a course – which can usually be found in course training standards, curriculum guides, etc. – can be mapped to industry competency requirements. A common approach uses the verbs associated with Bloom’s Taxonomy<sup>4</sup> to determine the level of learning.

An example of a learning objective (for a course in software engineering/design) might be:

*“At the end of this module, the student will be able to:*

- *Explain components, layers, services and integration (Bloom Level 2)*
- *Capture and interpret requirements (Bloom Level 3)*
- *Document detailed specifications (Bloom Level 3)*
- *Develop non-functional requirements (Bloom Level 3 or 4)*
- *Model software design trade-offs (Bloom Level 4)*
- *Etc.*

Accredited courses must be able to show how they deliver the competencies that industry requires. Generally, this task is executed by the learning providers themselves, through a process for mapping the learning objectives of their courses to specific competencies. Training providers, who are very familiar with the content of their courses, are best equipped to accomplish this.

At its most basic, this is a simple table that shows which course (or courses) deliver which competencies. More complex (and requiring more effort) is laying out the specific learning objectives, cross-referenced to the applicable module of a course, and the appropriate competencies, which provides more detailed and structured information that can be more easily evaluated.

Once the mapping is complete, it must be submitted to the accreditation body and reviewed by a trained evaluator to ensure that the mapping is accurate. Generally, this involves reconciling the level of learning (per Bloom’s Taxonomy, see Appendix C) that is articulated in the learning objectives, and comparing it to the level associated with the industry-required competencies.

It is important to note that this step only confirms the design objectives. Determining if a course actually delivers on the objectives requires additional steps, as detailed below in subsequent sections.

Processes for conducting this mapping activity are well established in other accreditation programs, and they can be adopted for use.

***An example of a typical mapping matrix is included at Appendix E.***

---

<sup>4</sup> [www.bloomstaxonomy.org](http://www.bloomstaxonomy.org)



### **Recommendation 6:** Mapping Learning Objectives to Competencies

Training providers should conduct their own mapping of learning objectives to competencies, at a module by module level, and submit this for evaluation.

#### Evaluating the materials/media/environment used to deliver the learning

What sort of exercises, applications, learning modalities are employed to allow a student to learn? For example, if a learning objective requires application, does the learning program indicate time/resources (labs, workshops, practical assignments) to apply and reinforce the learning?

Learning providers can be asked to provide sample learning materials (lesson plan, student handouts, assignments, etc.) from one or more modules of training submitted for accreditation. Often, the specific module is requested by the accrediting body at random only after the mapping is received, which precludes the provider sending their “best” materials.

***An example of a summary form for learning materials review is included at Appendix F.***

#### Evaluating how learning objectives are measured or tested.

If the learning objective indicates a particular level of learning, then it is necessary to ensure that there is an adequate mechanism for verifying that a student has actually achieved that level.

*In our experience evaluating vocational training programs, particular those delivered in industry, it is not unusual to discover that while learning objectives are written at an application level or higher (Bloom Level 3, or 4), they are tested using a multiple choice exam that tests recall or understanding at Levels 1 or 2.*

As part of the initial submission, learning providers should indicate how learning objectives are evaluated, and should be asked to provide samples of examination materials, which could include test blueprints, the tests themselves, scoring rubrics, etc.

Examination materials are evaluated to ensure that testing is done to the same level (per Bloom) that is reflected in the associated learning objectives, and that the testing process is sufficiently rigorous for the types of competencies being evaluated. Each learning objective needs to be mapped to the test that is used to verify it has been achieved. If (for example) the learning objective describes application in particular contexts, then the test should reflect the same context – it is not appropriate to simply determine understanding of concepts or terminology if application (i.e., using the information to solve particular types of problems) is indicated in the learning objectives.

#### Evaluating instructor qualifications

Determining who should teach accredited training presents a number of challenges. Generally, instructor qualifications can be broken down into a number of broad categories:

- Evidence of expertise in the subject matter being taught
- Evidence of expertise in delivering training
- Evidence of applicable industry experience.



Subject matter expertise can mean particular certifications, credentials or qualifications. It may also be evidenced by “industry experience”. It is also possible that the exact subject matter expertise may need to be articulated for every different combination and permutation of competencies in the accreditation program – another reason for limiting the scope to a relatively small number of clearly defined competencies identified by employers.

The specific qualifications will likely be dependent on the actual training content, but it should be possible to articulate a range of different instructor qualifications appropriate to different types of content.

For example, expertise in training delivery can be demonstrated through direct experience (how it is documented, and what sort of training qualification would need to be determined), as well as through a variety of existing instructor qualifications. Examples of these include:

- The Certified Training Practitioner (CTP) designation (Institute for Performance and Learning (I4PL), Canada)
- The Certified Training and Development Professional (CTDP) designation (also from I4PL)
- The CTT+ certification, administered by CompTIA in the US, and usually associated specifically with computer and digital technology training, although the same competencies apply in other training environments
- Teaching or adult learning certifications from reputable institutions
- Military instructor qualifications
- Internal, corporate instructor certifications

In addition, competencies for instructors have been articulated by the International Board of Standards for Training, Performance and Instruction (IBSTPI®), a non-profit corporation based in the US that sets competency standards for instructors, instructional designers and training managers. The IBSTPI instructor standards include 18 competencies clustered in 5 general domains and supported by 98 performance statements. The competencies are applicable to instructors, teachers, and training facilitators in any context, from K-12, higher education, for-profit, not-for-profit, military, to government agencies.

The IBSTPI standards are comprehensive and focused and can be used to gauge internal instructor qualifications against a recognized international standard.

### **Recommendation 7:** Instructor Standards

The program should provide multiple methods of demonstrating adherence to a meaningful, measurable standard for instructor competency. These different approaches should be clearly articulated as part of the accreditation process.

A suitable approach that is general enough to cover the range of anticipated learning objectives/competencies in the FPSC program might be as follows:

- Evidence that the instructor has sufficient practical experience (1-2 years of practice in industry) for the materials being taught
- Evidence that the instructor has sufficient specific experience teaching the material being submitted (generally, this mean teaching the course at least 3 times)



- Evidence that the instructor has received training in appropriate instructional methods (this could be a certification as described above, or else the training provider should provide details on the specific training received)

*A summary of instructor certification programs is included at Appendix B*

### Evaluating Training Delivery

Generally, this requires either an on-site audit where a qualified evaluator sits through one or more classes and observes instructors while they deliver their courses, or submission of video that illustrates particular elements of instructional delivery articulated in the accreditation program. (CTP has required this sort of “video evidence” as proof of competency).

For the type of competencies likely to be included in this program the best approach may be to have training providers attest to meeting prescribed delivery standards, augmented by documentation supporting their internal processes for ensuring delivery quality.

### **Recommendation 8:** Determining Quality of Instructional Delivery

FPSC should conduct additional primary research with industry and training providers to determine acceptable methods for verifying the quality of instructional delivery.

#### Evaluating Training Resources and Infrastructure

As above, this element generally requires an on-site audit of the facilities and resources used in training. On-site audits can be expensive (ECO Canada’s accreditation program charges \$4000, plus the expenses associated with audit team travel for performing a site visit), which may be cost-prohibitive for smaller, lower-volume training providers.

Depending on what is being evaluated during the site visit, it may be possible using current technology (video, real-time videoconferencing, etc.) to perform an audit remotely.

### **Recommendation 9:** Site Audits

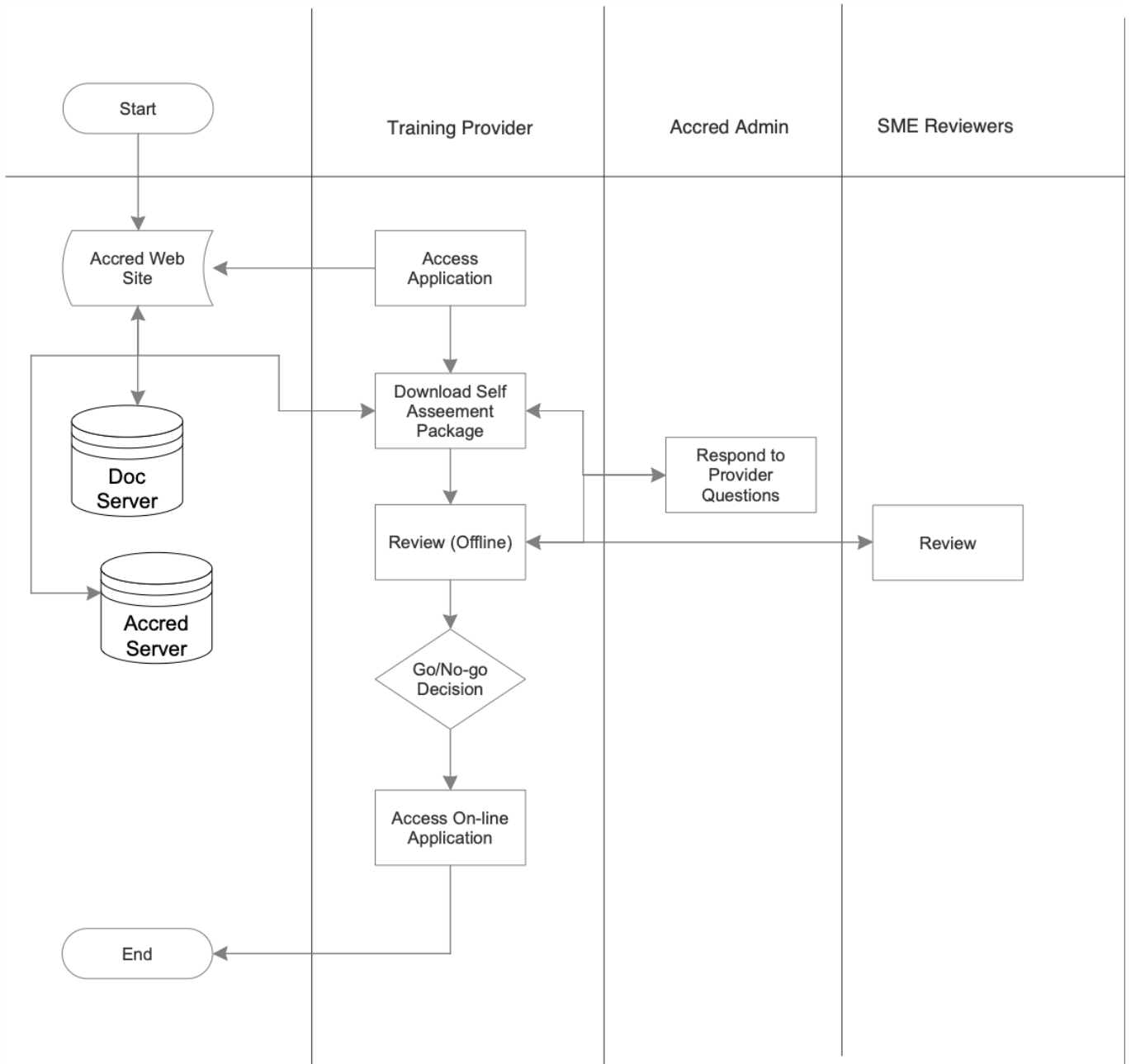
**9A:** Site audits should not be conducted as part of the accreditation process. Instead, it is recommended that the program require an attestation from the training provider that lists the resources available to deliver their training program, and that these are adequate to ensure quality standards are met.

**9B:** Site audits could be conducted in response to complaints with respect to a particular accredited training program (i.e., post-accreditation). The processes and circumstances that would trigger a site-audit, as well as responsibility for the costs of conducting the audit, must be clearly articulated in the accreditation contracts.



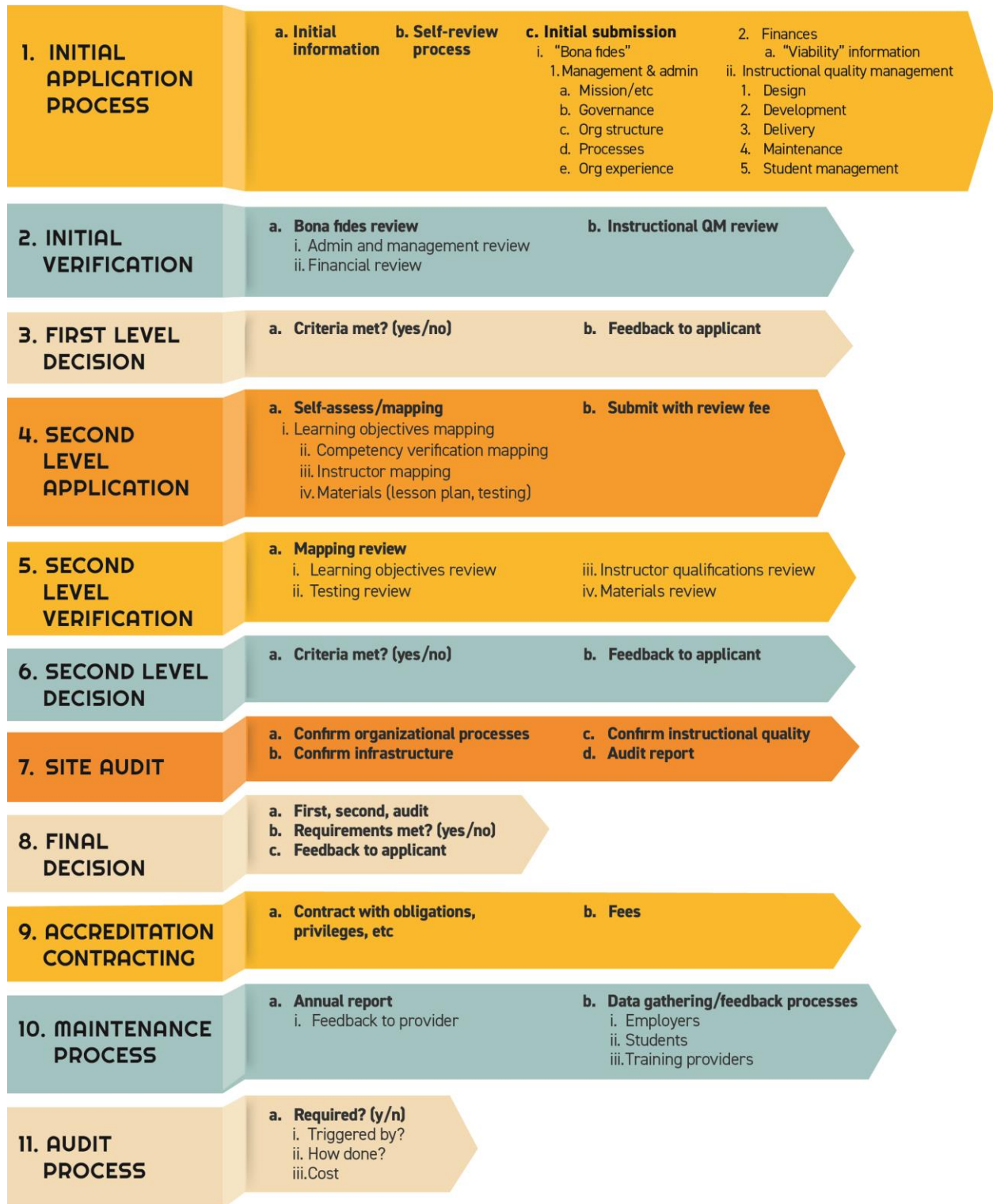
## PART 4 - Suggested Accreditation Model

While many details will need to be ironed out, the suggested accreditation model will contain the following elements:



In greater detail, this manifests itself as:





## Price Considerations for the Model

The more complex and rigorous the accreditation process, the higher the variable costs. The viability of the accreditation program is determined by setting pricing at a level that encourages enough providers to



undergo accreditation to offset the variable costs associated with an individual accreditation, with sufficient left over to cover the fixed costs, as well as continued investment in the maintenance of the program.

The HRSG Accreditation Feasibility Report<sup>5</sup> contains cost estimates for developing and running the accreditation program and shows a cost of \$2500 for an accreditation (2015 estimate). This does not appear to include an on-site audit fee (recommended at an additional \$2000). However, there is no indication in the study of the price sensitivity of various types/sizes of training providers with respect to accreditation at different pricing levels. This information is important, as using the wrong pricing strategy will seriously impact demand, which impacts revenue and ultimately determines the feasibility of the program.

Pricing accreditation is problematic when smaller providers are targeted, as they are often harder to assess (and therefore cost more) while having less ability to pay for accreditation. In contrast, larger, more established providers (particularly government-chartered post-secondaries) have more robust and well documented management practices, and may have gone through significant review by government agencies as part of their licensing requirements – this makes them easier (and therefore less costly) to evaluate, despite their ability to pay higher fees.

Various “sliding scale” models are used in other programs; ECO Canada bases their fee scale on the number of programs being assessed as shown below:

Initial Application and Accreditation Submission				
Number of Programs	Application	Site Review	Travel	Total Initial Fees
1	\$1,000	\$4,000	Up to	\$7,000
2	\$1,100	\$6,000	\$2,000	\$9,100
3	\$1,200	\$6,000		\$9,200
4	\$1,300		Up to	\$11,300
5	\$1,400	\$7,000	\$3,000	\$11,400
6 or more	\$1,500			\$11,500

Annual Program Maintenance		
Number of Programs	Maintenance	Cumulative Annual Fee
1	\$1,000	\$1,000
2	\$1,000	\$2,000
3	\$750	\$2,750
4	\$500	\$3,250
5	\$250	\$3,500
6 or more	Free	\$3,500

Other programs charge different fees based on the number of students trained, or other measures of scale; often, these pricing models subsidize smaller (and more costly) training providers with the higher fees paid by larger, more sophisticated providers.

It is unclear how these various pricing structures will be perceived by the training providers.

<sup>5</sup> Human Resources Systems Group. Accreditation program Feasibility Report v7. Food Processing Human Resources Council, 2015, p 38-41



### **Recommendation 10:** Program Costing/Pricing

**10A:** FPSC should conduct additional primary research with training providers (post-secondaries, private providers, internal/employer providers) to determine their degree of price elasticity/price sensitivity for an accreditation program as it relates to specific types of training.

**10B:** Detailed estimates of the cost of conducting accreditation activities should be undertaken as part of the development and pilot in order to determine an accurate “break-even” point for the program. This will ensure that pricing is adequate to sustain the program post-launch.

### **Conclusions:**

An accreditation program that meets industry requirements and corresponds to broadly accepted practice for accreditation can be developed. While there are still items that need to be resolved, none of these constitute “showstoppers”.

*It will be necessary to test these recommendations – and aspects of the model with industry stakeholders – both employers and training providers – to fine tune the design parameters so we can begin developing the specific policies, procedures, tools, and training to support the program.*



# APPENDIX A



### Appendix A: ISO Standards Overview

This Appendix provides an overview of two International Standards Organization (ISO) standards that relate to quality management in training and instruction.

#### ISO 29993

ISO 29993:2017 is a standard that specifies requirements for learning services **outside** formal education. This includes any number of “life-long” and career learning services, whether conducted inside a company/organization, or outsourced to an external agency.

The standard covers a broad range of activities for learning service providers (LSPs), including:

- proposals
- needs analysis
- design of learning
- service delivery
- instructors/facilitators
- assessment/evaluation of learning
- monitoring/evaluation of learners, and
- billing/invoicing for learning services

The actual publication is 10 pages long; organizations can be assessed against the guidelines, and there are a number of certifying firms that will audit processes to determine compliance.

#### ISO 21001

ISO 21001:2018 specifies a management system for educational organizations – that is, institutions within a formal education environment. It can also be used by a department within a larger organization whose core business is not education; this would include professional training departments within a manufacturing or research company.

At 63 pages long, ISO 21001 is much more extensive than ISO 29993. It includes guidance on all aspects of an Education Organization Management System (EOMS), including:

- organizational context
- organizational leadership
- planning
- support
- operations
- performance evaluation
- continuous improvement

It also contains appendices/annexes to address areas such as:

- early childhood education
- basic principles of an EOMS
- understanding the various stakeholders in education organizations
- guidance for communicating with stakeholders
- processes, measures and tools
- guidance on mapping the ISO requirements to regional standards
- OH&S guidance for education organizations



The standard outlines criteria that can be used for evaluating the organizational management systems. Benefits of compliance (which is voluntary) include:

- better alignment of objectives and activities with policy (including mission and vision);
- enhanced social responsibility by providing inclusive and equitable quality education for all;
- more personalized learning and effective response to all learners and particularly to learners with special education needs, distance learners and lifelong learning opportunities;
- consistent processes and evaluation tools to demonstrate and increase effectiveness and efficiency;
- increased credibility of the organization;
- a means that enables educational organizations to demonstrate their commitment to effective educational management practices;
- a culture for organizational improvement;
- harmonization of regional, national, open, proprietary, and other standards within an international framework;
- widened participation of interested parties;
- stimulation of excellence and innovation.

Compliance should lead to better results for learners.



# APPENDIX B



### Appendix B: Instructor Competency Standards Overview

This Appendix provides an overview of a number of different (albeit similar) standards for instructor competency and certifications. These are intended as examples that could be used to develop a reference standard for instructor competency for this accreditation program.

#### **Certified Training Practitioner (CTP)**

The Certified Training Practitioner (CTP) designation is a Canadian certification offered by the Institute for Performance and Learning (I4PL). It is focused on the competencies related to “facilitating training” and “partnering with clients” from I4PL’s “Competencies for Learning and Development Professionals”.

Certification requires a candidate to pass a knowledge test (30 questions) as well as submitting a 30-minute video of evidence of their ability to effectively deliver/facilitate training. The video evidence is evaluated against a scoring rubric, and a determination is made of the degree of mastery of the required competencies.

See <https://performanceandlearning.ca/page/GettingCertified> for more information

#### **Certified Training and Development Professional (CTDP)**

The Certified Training and Development Professional (CTDP) designation is a Canadian certification offered by the Institute of Performance and Learning (I4PL). Candidates must demonstrate skill and knowledge across the complete range of competencies from I4PL’s “Competencies for Learning and Development Professionals. These include:

- Assessing Performance Needs
- Designing Learning Experiences
- Facilitating Learning Experiences

Certification includes passing a 100-question exam, as well as submitting either:

- evidence of competence (a “skills demonstration”) in at least 2 of the above categories, OR
- Senior Practitioners can submit a portfolio of their work which demonstrates proficiency across the competencies

See <https://performanceandlearning.ca/page/GettingCertified> for more information.

#### **Certified Technical Trainer (CTT+)**

CTT+ is a professional certification offered through CompTIA in the US and is primarily aimed at instructors/trainers providing “technical training and instruction”. In practical terms, this usually means teaching applied skills in the use of computers, software and related technologies. It is widely accepted across the IT industries but is also applicable in other sectors as well.

The certification has a common core exam (CTT+ Essentials), as well as specialized performance-based examinations for in-person/instructor-led training (CTT+ Classroom) and on-line/virtual learning (CTT+ Virtual Classroom) environments. The exams cover in and out of class preparation, facilitation and evaluation, and the performance-based exams require submission of evidence (17-22 minutes of video) that illustrates the candidate’s competency.





See <https://www.comptia.org/certifications/ctt> for more information

### **IBSTPI Instructor Competencies**

The International Board of Standards for Training, Performance and Instruction has produced a number of standards that inform best practices in instructional design, development, and delivery, instructional evaluation, and training management.

Note that there are no certifications associated with the standards, as they are intended as references for best practice.

The “IBSTPI Instructor Competencies” include 18 competencies, grouped by “Professional Foundations”, “Planning and Preparation”, “Instructional Methods and Strategies”, “Assessment and Evaluation”, and “Management”.

The competency statements are available as a free download at <https://ibstpi.org/instructor-competencies/>

A downloadable version of the complete, detailed competencies is also available, and can be purchased for \$US 15 from the above link.



# APPENDIX C



## Appendix C: Bloom’s Taxonomy

The toughest job in a training environment is making sure that acquired skills and knowledge are transferable to the real world. Failure to do this results in wasted time and money and gives training a bad name in many organizations.

Much research has been done on the transfer of learned skills and knowledge. Bloom’s taxonomy relates to the cognitive domain – knowledge and the application thereof.

Bloom’s Taxonomy		
Cognitive Level	Definition	Illustrative Verbs for Learning Objectives
1. Knowledge	remembering previously learned information	arrange, define, describe, duplicate, identify, label, list, match, memorize, name, order, outline, recognize, relate, recall, repeat, reproduce, select, state
2. Comprehension	grasping the meaning of information	classify, convert, defend, discuss, distinguish, estimate, explain, express, extend, generalize, give example(s), identify, indicate, infer, locate, paraphrase, predict, recognize, rewrite, report, restate, review, select, summarize, translate
3. Application	applying knowledge to actual situations	apply, change, choose, compute, demonstrate, discover, dramatize, employ, illustrate, interpret, manipulate, modify, operate, practice, predict, prepare, produce, relate schedule, show, sketch, solve, use write
4. Analysis	breaking down objects or ideas into simpler parts and seeing how the parts relate and are organized	analyze, appraise, breakdown, calculate, categorize, classify, compare, contrast, criticize, derive, diagram, differentiate, discriminate, distinguish, examine, experiment, identify, illustrate, infer, interpret, model, outline, point out, question, relate, select, separate, subdivide, test
5. Synthesis	rearranging component ideas into a new whole	arrange, assemble, categorize, collect, combine, comply, compose, construct, create, design, develop, devise, explain, formulate, generate, plan, prepare, propose, rearrange, reconstruct, relate, reorganize, revise, rewrite, set up, summarize, synthesize, tell, write
6. Evaluation	making judgments based on internal evidence or external criteria	appraise, argue, assess, attach, choose, compare, conclude, contrast, defend, describe, discriminate, estimate, evaluate, explain, judge, justify, interpret, relate, predict, rate, select, summarize, support, value

Blended learning approaches ensure that the ‘right’ instructional vehicle is being used to move the trainee along the continuum of knowledge and application. For example, if all that is necessary is a ‘declaration of knowledge’, then classroom or self-study are appropriate vehicles. If, however, it is necessary to show the synthesis of knowledge and the ability to apply that knowledge in a variety situations, then the classroom is an inappropriate learning environment, and a knowledge test is an inappropriate verification.

**Let’s take an example:** if the requirement is to teach airline cabin crews how to put out on-board fires, obviously the best way to prove they can do it is to put them on an aircraft at 35,000 feet and light it on fire - it’s easy to figure out who passes the course, and we wind up with a smaller and more affordable graduation ceremony too. However this isn’t very practical, burning up airliners is very expensive - and pilots tend to get annoyed.



Next in terms of realistic testing would be lighting a fire on a real airliner, but on the ground... but again, that is both risky and costly. Or we could use a mock-up cabin trainer. Or we could have trainees put out fires in a wastebasket. Or we could just teach them the procedure and have them write a test to prove they've learned it.

Recent developments in virtual reality and 3D graphics have made it possible to conduct extremely realistic testing for high-risk skills in a synthetic and completely safe environment.

As we move away from reality, the test of competence becomes tougher to correlate to real-world performance. If the purpose of training is to achieve application of knowledge in real-world situations and if there is an element of risk involved, then the best way to verify skills is through a "real world" demonstration of competence, or a realistic simulation.



# APPENDIX D



## Appendix D: Example Course Mapping Matrix

The following matrix is an example of mapping, comparing elements of the FPSC Learning and Recognition Framework to a training course available through the Canadian Food Processors Institute. Similar grids can be developed to allow training providers to map their content to industry-defined competencies or learning outcomes.

Learning Recognition Framework Information							Training Provider Information					
Role	Role Level	LO	Description	LO Details	PI	PI description	Module/Lesson Identifier	Module Description	LO	LO Description	LEVEL?	How Tested?
Sanitation Worker	L2	LO1	Understand the purpose of the cleaning and sanitizing task	The cleaning and sanitizing tasks follow a set of cleaning and sanitizing procedures and processes to prevent food from becoming contaminated and to keep it safe for consumption	P1	Understand the difference between cleaning and sanitizing	Not stated	What is sanitation and why do we do it?		Definition of cleaning, definition of sanitizing,	1	UNKNOWN
					P2	Explain regulatory requirements regarding cleaning, sanitation and employee practice						
					P3	Comply with cleaning and sanitizing procedures						
					P4	Apply effective cleaning and sanitation program to reduce biological hazards to a safe level and remove chemical and physical hazards	Not stated	Cleaning and sanitizing procedures		Follow a cleaning and sanitation flow chart/ checklist: step-by-step	3?	UNKNOWN



# APPENDIX E



## Appendix E: Example Course Materials Review

The following is from an actual review of learning materials conducted by WFSI founder Jeff Griffiths as part of our work with a national certification/accreditation program.

### Evaluation of Training Materials

Provider:	***DELETED TO PROTECT CONFIDENTIALITY
Course Name:	Portable Fire Extinguishers
Reviewer:	Jeff Griffiths
Date of Review:	6 Nov 2009

The materials have been reviewed in light of current practice in the training industry as well as degree of conformance to the requirements of the \*\*\*DELETED FOR CONFIDENTIALITY PURPOSES \*\*\*\* program.

#### Rating Scale:

0	1	2	3	4
Not observed/ applicable	well below requirements expected for this program	below the requirements expected for this program	meets the requirements expected for this program	exceeds the requirements expected for this program

Item	Description	Low	High
1	Instructional materials are current and up to date	3	
2	Instructional materials address differences in individual learning styles	3	
3	Instructional materials support the objectives of the course.	3	
4	Instructional materials require active responses from participants.	3	
5	Instructional materials provide relevant learning activities.	3	
6	Instructional materials are free of grammatical, spelling and typographical errors.	3	
7	Instructional methods are student-centred.	3	
8	Instructional methods directly relate to the instructional materials	3	
9	The instructional program is organized systematically & sequentially	3	
10	The instructional materials align with the Standard of Competency requirements. (Note discrepancies in the Comments section)	3	

Comments (continue on back if needed):

- This is a single, self-study module that aligns with some of the KNOWLEDGE requirements of numerous Standards of Competency in the \*\*DELETED FOR CONFIDENTIALITY\*\*\* (see attached sheet).
- The self-study module is augmented with practical exercises conducted in-house on various types of extinguishers and use of the equipment in extinguishing different types of fires under controlled circumstances. Reviewed materials are well structured and written.
- This is one component of a comprehensive XXXXX program.
- Easy to follow, logical sequencing
- A final exam (proctored) is included for each level of the overall program, but this was **not** available for review