



**Information Systems
and
Technology
Accreditation Council
(ISTAC)**

Accreditation Criteria

- **Public Sector**
- **Private Sector**

As of March 2023



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Abstract

These guidelines are written to aid administrators involved in the accreditation of Information and Communications Technology (ICT) training programs within public and private sectors of technology. These guidelines are administered by the Information Systems and Technology Accreditation Council (*ISTAC*) and apply to training programs leading specific employment classification or job titles. Specific criteria are applicable depending upon the National Occupation Code (NOC) being put forward to undergo accreditation.

The following sections specify the objectives of accreditation, the various steps in the process, and the essential and desirable qualities of accreditable programs. Questions and suggestions for improvements may be sent directly to the CIPS Accreditation Secretariat (accreditation@cips.ca).

1. Introduction

The Information Systems and Technology Accreditation Council is an autonomous body established by the Canadian Information Processing Society.

The Council has as its objectives:

1. *To formulate and maintain high educational standards for universities, colleges and institutes/organizations of technology offering information and communications technology (ICT) programs, and to assist those organizations in planning and carrying out educational programs.*
2. *To promote and advance all phases of ICT education with the aim of promoting public welfare through the development of better educated computer practitioners and professionals.*
3. *To foster a cooperative approach to ICT education among industry, government, and educators both nationally and globally to meet the changing needs of society.*

The purpose of accreditation is to recognize training programs whose graduates will have received an outstanding education in ICT – an education informed by state-of-the-art professional practice, sound underpinnings of information and computer technologies, and the needs and applications of industry. Accreditation can also be an important component in an organizations' quality monitoring and improvement program.

SFIA (Skills Framework for the Information Age) accreditation criteria incorporates principles of *outcomes-based* accreditation focusing on skills required for a particular occupational profile. This contrasts with an emphasis on educational *inputs*, such as number of courses taught, and lists of topics in the curriculum. The emphasis of these criteria is instead towards *skills of a particular occupational profile*, i.e., *identifying the required skills and setting sound educational objectives and measuring the extent to which these skills have been met*. These skills objectives and outcomes can be expressed at course or training program levels.

More specifically, outcomes-based accreditation requires the setting of clear program *objectives* (i.e. the intended purpose of the training program) and program *skill outcomes* which describe what students should know and be capable of doing upon graduation from the program. Organizations will typically set their own specific program skill objectives, outcomes, and graduate attributes, but ISTAC-accredited programs are expected to substantially meet SFIA occupational profile required skills being reviewed for accreditation, which has established a set of internationally recognized expectations for students graduating from various types of ICT training programs.

ISTAC accreditation is designed primarily for applied degree, diploma and certificate programs as offered through universities, colleges, institutes of technology and other institutes of higher learning. Specific ISTAC criteria are also provided via SFIA Skill Framework corresponding to specific occupational profiles for public sector training programs. As such, ISTAC accreditation is intended to be applied to a wide range of program types and durations, providing organizations with the flexibility to design ICT program outcomes and graduate attributes to meet the needs of their organizational mandates, students, and target industries.

2. Method of Evaluation

Training programs submitted for accreditation will be evaluated based on data submitted by the organization in the form of a self-study report and other supporting documentation, together with the report of an on-site (or virtual) visit by a qualified team (or team representative(s)) representing the Council.

The self-study report should follow a structured outline as identified in the Questionnaire. During the process of creating the report, the organization should demonstrate to itself and to the Council that it can meet the accreditation criteria or, if not, it should demonstrate that it is aware of the shortcomings and has a concrete plan to rectify them. In particular, the report should demonstrate how all aspects of the program, including students, faculty, resources, and curriculum together enable the achievement of a set of defined program objectives. The self-study report will be used as primary input for the analysis of the program by the accreditation team.

A site visit is preferred, but where not practical, virtual interviews will be conducted for the purposes of:

First, the site visit should assess factors beyond those described in the questionnaire. The overall educational environment, the morale and calibre of the staff and the student body, and the approach taken to the work performed are examples of intangible qualitative factors that are not always apparent in a written statement.

Second, the visiting representative(s) can observe firsthand the strengths, unique characteristics and areas of potential improvements related to the program.

Third, the visiting representative(s) will assess and validate the material in the self-study including:

1. Organization structure and administration of the organization.
2. Education programs offered, and occupational profiles conferred by the organization training programs overall.
3. The basis of and requirements for admission of students both in general and to the training program(s) undergoing accreditation.
4. Number of students enrolled in the educational programs undergoing accreditation.
5. Teaching staff and teaching loads.
6. Commitment to and support for professional development, industry involvement and research.
7. Resources:
 - a. financial: total budget, and non-salary portion of budget,
 - b. physical: classrooms, laboratories, equipment, and offices,
 - c. support staff: administrative, clerical, laboratory, research and technical,
 - d. reference materials: electronic resources and/or digital libraries,
 - e. additional facilities, where they exist and are relevant (e.g., entrepreneurship labs, maker spaces, innovation labs)
8. Curricular content of the training program(s).
9. Program delivery and outcomes, including sampling of transcripts, examinations, projects, assignments, etc.
10. Innovative and special features of the program.
11. Organizational policies and supports.

3. Glossary

For the purpose of ISTAC accreditation, the following definitions apply.

SFIA Occupational Skill Profile: SFIA defines the skills and competencies required by professionals who design, develop, implement, manage, and protect the data and technology that power the digital world. The SFIA professional skills are defined to be consistent with the levels of responsibility definitions. SFIA skill levels are:

| SFIA Level | Knowledge attributes in SFIA's Levels of Responsibility |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 - Follow | Has a basic generic knowledge appropriate to area of work. Applies newly acquired knowledge to develop new skills. |
| 2 - Assist | Demonstrates application of essential generic knowledge typically found in industry bodies of knowledge. Has gained a basic domain knowledge. Absorbs new information when it is presented systematically and applies it effectively. |
| 3 - Apply | Has a sound generic, domain, and specialist knowledge necessary to perform effectively in the organisation typically gained from recognised bodies of knowledge and organisational information. Demonstrates effective application of knowledge. Has an appreciation of the wider business context. Takes action to develop own knowledge. |
| 4 - Enable | Has a thorough understanding of recognised generic industry bodies of knowledge and specialist bodies of knowledge as necessary. Has gained a thorough knowledge of the domain of the organisation. Is able to apply the knowledge effectively in unfamiliar situations and actively maintains own knowledge and contributes to the development of others. Rapidly absorbs new information and applies it effectively. Maintains an awareness of developing practices and their application and takes responsibility for driving own development. |
| 5- Ensure, Advise | Is fully familiar with recognised industry bodies of knowledge both generic and specific. Actively seeks out new knowledge for own personal development and the mentoring or coaching of others. Develops a wider breadth of knowledge across the industry or business. Applies knowledge to help to define the standards which others will apply. |
| 6 - Initiate, Influence | Promotes the application of generic and specific bodies of knowledge in own organisation. Has developed business knowledge of the activities and practices of own organisation and those of suppliers, partners, competitors and clients. |
| 7 - Set Strategy, Inspire, Mobilise | Has established a broad and deep business knowledge including the activities and practices of own organisation and a broad knowledge of those of suppliers, partners, competitors, and clients. Fosters a culture to encourage the strategic application of generic and specific bodies of knowledge within own area of influence. |

URL: <https://sfia-online.org/en/tools-and-resources/bodies-of-knowledge>

National Occupation Classification Code (NOC): National Occupational Classification (NOC) system to classify jobs (occupations). Jobs are grouped into training, education, experience, and responsibilities (TEER) categories based on the type of job duties/work a person does.

Skill: Ability to use one's knowledge effectively and readily in execution or performance.

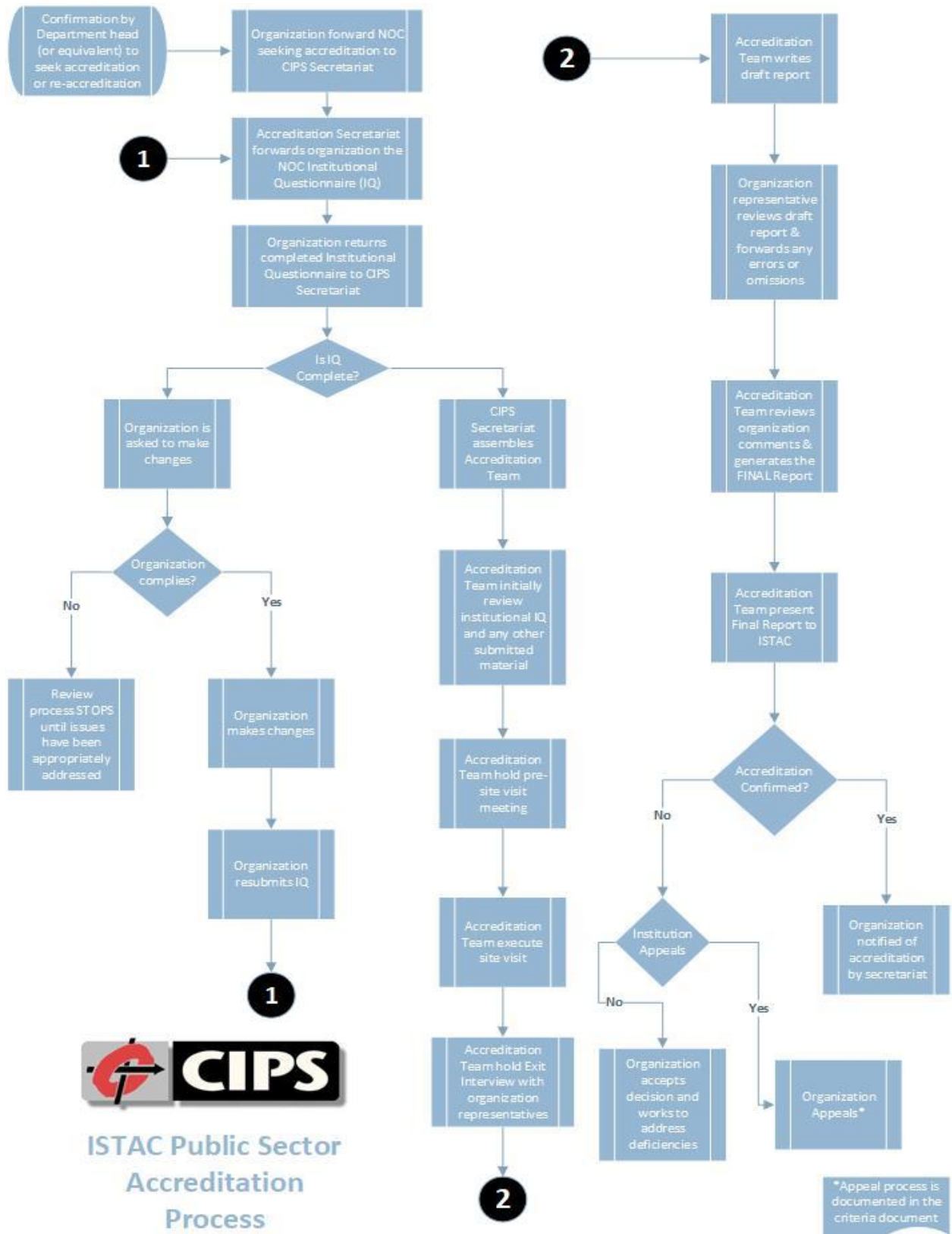
Objective: Planned goals or intent of a program or educational unit (e.g. course). Generally expressed from the perspective of the teacher or faculty. Occasionally the term is used interchangeably with Outcome.

Outcome: Measurable evidence that an objective has been met. Also refers to the expectations of the students' achievements or accomplishments after the educational activity. Generally expressed from the learners' perspective. Occasionally used interchangeably with Objective.

Quality Indicator: Qualitative or quantitative data used to help assess whether an objective has been met.

Rubric: A document describing how an exam, assignment or other student activity should be evaluated, specifically mapping to the learning objectives that should be assessed.

4. Accreditation Process



5. SFIA Objectives and Skill Levels

Each training program must have a set of program objectives and graduate attributes describing what students should know and be capable of doing following graduation.

Organizations and individual programs have flexibility in setting their own program objectives, outcomes, and skill levels. A documented mapping of the organizations program objectives to the SFIA Occupational Profile will be required to demonstrate that the appropriate skills set range has been achieved.

5.1 SFIA Occupational Profile Skill Set

Table in Appendix B provides profiles of expected graduate skills set based on identified NOC mapped to the SFIA Occupational Profile being reviewed.

5.2 Quality Indicators and Outcomes

Evidence should be provided that the skills defined for each program have been fulfilled. In other words, there must be evidence that what students know and can do following graduation correspond with the defined program-level objectives. This is achieved by *quality indicators*. These are qualitative and quantitative data gathered by the organization.

The Accreditation will review quality indicators in each of the following areas/sections: Faculty, Students, Curriculum, and Resources. Suggestions for quality indicators are provided in each corresponding section. The self-study and accreditation process largely involve studying and verifying the quality indicators to ensure that the outcomes correspond to the defined objectives.

5.3 Quality Improvement/Enhancement Process

Evidence should be provided that the organization has a quality enhancement process to improve the training programs under accreditation through regular review and upgrade of program objectives.

6. Faculty

The capability of any training program to provide high-quality education or training is ultimately dependent upon the background and dedication of the faculty members. A competent and dedicated faculty can provide a good program despite deficiencies in other areas such as physical resource availability. However, excellent resources and facilities cannot compensate for insufficient or poor-quality staff. It is therefore important that an organization seeking accreditation for a training program has allocated the resources necessary to provide sufficient numbers of high-quality faculty and is committed to maintaining the allocations necessary for the continuation of high-quality training program delivery.

The heart of any educational training program is the faculty. A CIPS-accredited training program will possess a strong, competent faculty with the necessary size and capabilities to deliver the training program, establish the appropriate rapport with students and maintain overall program quality. Organizations seeking ISTAC accreditation must demonstrate the allocation of enough resources necessary to maintain this critical mass of quality faculty.

Factors related to faculty size include the enrolment, objectives of the training program(s) being accredited, subject areas required by the curriculum, assigned teaching loads, funded (or applied) research, industry involvement, extension and continuing education activities, and participation in professional and technical societies.

To function effectively as teachers, instructors should be able to demonstrate that they actively, acquire new knowledge and skills, pursue industrial interaction, explore instructional innovation, as well as consult and engage in other professional development activities.

Suitable quality indicators (when applicable) regarding faculty for the self-study and accreditation report include:

- Job satisfaction of faculty as expressed in interviews or surveys
- Distribution of faculty expertise and experience over areas required by the training program.
- Knowledge and skills of faculty in areas corresponding to the occupational profile, including areas related to ethics and professionalism.

Faculty members should be aware of the technical skills and business knowledge found in the local communities to be served by the program as well as those common to the business community in general. Factors to be considered in this assessment include academic background, pedagogical credentials, and work experience [*Defined as professional level experience including working in nontrivial, complex project planning, analysis, development and implementation areas, including all phases of the system development cycle.*], and the related business experience of the instructional and administrative staff. There should be a broad range of knowledge and experience enough to provide expertise in all areas of the program's curriculum.

It is the expectation of accredited programs that all faculty possess formal qualifications in Computer Science, IS, IT, Computer Engineering, Software Engineering, or a closely related discipline. The faculty profile should also reflect a balance of credential levels, including undergraduate and graduate degrees. ISTAC National Guidelines and Expectations for Faculty Teaching IT related courses are:

1. Faculty members have academic credentials and work experience equivalent to or better than the credential and work experience expectations of the students upon graduation.
2. IT faculty members, including lab assistants, hold a diploma or degree in Computing or closely related field,
3. A significant percentage (typically 30% or more) hold graduate degrees in Computing or a related field,
4. IT faculty members have at least 2 years of full-time IT related industry experience (other than teaching),
5. A significant percentage (typically 50% or more) have a minimum of 5 years of senior full-time IT related experience,
6. Alternative considerations:
 - a. Faculty who possesses their CIPS I.S.P. or ITCP designation.
 - b. Mature faculty who do not have formal credentials but learned “on-the-job” and usually have a significant number (10 or more) of years of full-time IT related industry experience.
 - c. Mature faculty who do not have formal credentials, but who do have an appropriate combination of vendor specific credentials and significant (typically 5 years or more) of senior full-time IT related experience.

To evaluate the quality of the faculty, the team representative(s) will examine the data presenting the quality indicators in the self-study report, as well as the CVs of the faculty members. The team representative(s) may gather further insights from discussions and interviews with staff, students, and administrators.

In addition to faculty teaching directly into the training program, the team representative(s) may also interview faculty from other specialty areas related to the program where appropriate.

7. Infrastructure and Resources

All the disciplines in an accredited program must have access to virtual resources and/or physical buildings, offices, laboratories, equipment, support staff, and fiscal resources that are appropriate for the characteristics of the training program that is being undertaken. The accreditation team may review and tour these facilities as part of the on-site (or virtual) visit.

For a training program to be accredited there must be evidence of an ongoing commitment by the organization to maintain and modernize the physical (or virtual) and support aspects of the organizations' environment. The physical or virtual environment should be adequate to provide appropriate learning.

Software provided and used within the training program should be representative of commonly encountered business software in use in the community and should provide for the full spectrum of applications. There should be generalized business application software as well as technical software available to the students. Consideration should be given to the acquisition of software which embodies tutorial and help facilities as an integral part of its package. There should be provision for a maintenance plan, and technical support staff to assist students and staff with software and hardware problems, and with the setup of student exercises.

There must be adequate access to electronic and other reference resources, such as the ACM and IEEE and other ICT digital libraries. The collections must be maintained and refreshed to remain current, and there must be a breadth of materials included. Electronic networking enough to provide students and faculty access to external resources is also important.

Suitable quality indicators for the self-assessment and accreditation report include the following, all assessed relative to the student population.

- Satisfaction of students and faculty with the resources available,
- Sufficiency of the resources to teach the courses, and to meet the Program Objectives.

To evaluate the quality of resources, the team representative(s) will inspect physically or virtually the facilities, and will interview students, staff, and faculty. The team representative(s) will also study budgets and policies in place for ensuring the resources are maintained and replaced as they become obsolete.

Access to technical information and documentation must be readily available. Alternative types of delivery should be available for use to enrich the training program delivery. The training program must have adequate administrative support and services that are consistent with the faculty size and student population.

8. Administration, Planning and Internal Process

A capable administration must be in place that understands the special needs of a technical program. Formally documented policies and procedures should be in place and well communicated to faculty, students, and other stakeholders as appropriate. Planning (long and short term, operational and strategic) must take place at all levels, and a monitoring and feedback process must be present.

There should be a budget provision and a plan for updating equipment and software on a regular basis. A documented process must be in place to assure continuity and sustainability of ongoing program quality and currency.

The process for ongoing curriculum renewal must include the gathering of data from a variety of sources to inform the curriculum renewal process, including feedback from graduates and industry.

9. Students

A CIPS-accredited training program is typically characterized by its enthusiastic students.

A student advisory system for both academic and personal support is an important component in any educational program.

Faculty members and career counsellors will be familiar with professionalism issues, ethical codes of conduct and related matters within the ICT industry. Exposure to specific professional standards and ethical expectations in the IT industry (e.g. CIPS Ethics Code) is expected.

Suitable quality indicators regarding students for the self-study and accreditation report include:

- Student selection and retention standards will be appropriate to the training program.
- Student's satisfaction with their program and progress as assessed through questionnaires and interviews,
- Attrition rates
- Admission rates
- Graduation rates

To assess the quality of students, the team representative(s) will interview groups of students and alumni, study transcripts and samples of student work, as well as analyse the data presented in the self-study report. Where possible, the team will also speak to employers.

10. Curriculum

The curriculum must serve the needs of the students, employers, and the community. Accredited training programs should allow all these stakeholders the opportunity to provide an influence on the curriculum and to ensure that graduates are qualified for information systems related employment. It should foster the development of graduates with a diverse set of skills to meet immediate and long-term needs. It is particularly important that graduates be prepared for 'life-long learning' to maintain currency in this rapidly changing and evolving field.

This section refers to units of instruction comprising the curriculum for a training program. It is recognized that organizations can design their instructional units in differing ways (traditional courses, learning modules, self-paced units, etc.). For the purpose of this section, typically an instructional unit consists of a course outline or contract, learning objectives, teaching materials (notes, textbooks, etc.) and teaching/learning activities (labs, lectures, assignments, etc.) and evaluations (tests, quizzes, exams)*.

The learning objectives of the instructional unit will contribute meaningfully to the objectives of the program and its occupational skill profile. The Accreditation Team will review the curriculum to ensure that this is the case - both as a plan (i.e. the mapping of instructional unit level objectives to the appropriate SFIA Occupational Skill Profile Skill Set) and in its execution (i.e. the actual outcomes of the course to the skills in terms of the capability of the student).

While local industry or community needs will impact the content of the program, accredited programs also address preparing graduates to work as IT professionals nationally and even globally.

It is expected that the organization will have several quality control mechanisms in place which will be used on an on-going basis to:

- conduct environmental scans related to both local and national industry trends,
- review program objectives and align to industry needs and trends,
- evaluate the appropriateness of course content,
- evaluate the appropriateness of grading and assessment procedures, and
- monitor the quality of faculty and teaching.

** For convenience, the term course is often used in this section to refer to instructional units given that most organizations use this terminology.*

10.1 Evidence that Occupational Profile Skills Set Has Been Met (Quality Indicators)

Central to outcomes-based self-study and accreditation is demonstrating that the appropriate range of skills have been met for the training program undergoing accreditation. For each of the remaining subsections measurable evidence (quality indicators) should be provided that each student has fulfilled each of the skill requirements. Such evidence can include mappings from course-level objectives to SFIA skills, rubrics for assignments and tests indicating which skills are being assessed, and other quality indicators.

Learning objectives and outcomes should be presented for core courses in ICT topics, as well as topics in other related disciplines where appropriate. Expressed from the learners' perspective, learning outcomes should map to the appropriate SFIA skills and describe what students will have achieved by the end of each course. Each outcome will be typically expressed in sentences with an active verb. Verbs implying performance capabilities, such as 'calculate', 'design', 'evaluate', 'apply', 'solve', 'create', 'build', 'determine', 'develop', 'assess', 'use', 'lead' and 'present' are preferable to verbs implying more passive learning, such as 'know' and 'understand', although the latter would be appropriate for some types of knowledge.

In the same manner that the program-level objectives, and outcomes should be approved and reviewed through an appropriate quality review process, the learning objectives and outcomes at the instructional unit level should be approved by the organization and reviewed periodically. Part of this review will be to ensure that the learning objectives, and outcomes remain in alignment. Evidence should be presented that the objectives are being accomplished within each instructional unit. The use of *rubrics* or similar documentation for learning activities is recommended. Rubrics describe what is to be expected of students in each learning activity and should indicate which learning outcomes students would be demonstrating by successfully completing the activity.

The team representative(s) will review samples of student work including examinations, tests, projects, and assignments to this end. In addition, the team representative(s) will cross-reference information gathered from interviews with faculty, students, and others.

Taken together, the outcomes of the instructional unit taken regardless of the path a student chooses for graduation, should satisfy the SFIA Occupational Skills Set. To demonstrate this, the self-study report contains a table for each required instructional unit, course (or course group) mapping how the unit contributes to each SFIA Occupational Skill.

10.2 Curriculum - Overall Distribution of Courses

For each range of occupational profile skill level, it is expected that an accredited program will have the necessary duration and deliver the required instructional unit or course to fulfill the skill requirements. Furthermore, the training program must ensure that *all* students must meet the required skill level to be eligible for the occupational profile. This can be especially important where students are permitted electives or alternate courses for completion.

The next subsection describes the distribution of instructional units or courses that would generally be expected for different types of programs to fulfill the SFIA Occupational Skills Set. The intent here is NOT to prescribe specific courses or topics but to illustrate how typical courses can map to the corresponding range of SFIA Occupational Skills in terms of duration, breadth, and depth. Organizations may design their programs to meet the SFIA Occupational Skills requirements in other ways. The priority is to demonstrate that the proper range of SFIA Occupational Skills has been met for the training program undergoing accreditation.

10.2.1 SFIA Business Systems Specialists Occupational Profile Skills

Criteria

NOC: 21221

| | | |
|-----------------------------|-------|-------------------------------------------------------------------|
| Broad occupational category | 2 | Natural and applied sciences and related occupations |
| Major group | 21 | Professional occupations in natural and applied sciences |
| Sub-major group | 212 | Professional occupations in applied sciences (except engineering) |
| Minor group | 2122 | Computer and information systems professionals |
| Occupation | 21221 | Business systems specialists |

Lead statement: Business systems specialists perform detailed system tests, produce reports and develop new system architectures. They must also identify the strategic objectives of a company and translate these objectives into achievable tasks for an organization's information technology department. They are employed in information technology consulting firms and in information technology units throughout the public and private sectors.

Example titles:

- Business systems analyst
- Business systems consultant
- Information systems business analyst
- Information technology (IT) business analyst

Main duties

This group performs some or all the following duties:

- Confer with clients to identify and document requirements
- Analyze information systems processes, and propose customized solutions to improve performance and efficiency
- Design, develop, integrate, test and implement information systems business solutions
- Provide advice on information systems strategy, policy, management, security and service delivery
- Act as a liaison between the business units, technology teams and support teams
- Conduct tests to ensure the reliability, accuracy, and functionality of system changes and enhancements

SFIA Generic Levels of Responsibility

- AUTO3, INFL3, COMP3, KLGE4, BSKL4

SFIA Required Skills

- ARCH4, BUSA3, BUSA4, FEAS3, REQM2, REQM3, REQM4, BPTS2, BPTS3, BPTS4, INCA1

SFIA Desirable Skills

- BUSA5, BUSA6, FEAS4, FEAS5, REQM5, BPTS5

Note: The number following the skill abbreviation indicates the level of skill performance required.

The following table of required, desirable, and generic skills are identified from the SFIA 2021 V1.0 Occupational Profile of Business Systems Specialists NOC # 21221.

| SFIA Skill | SFIA Skill Name | SFIA Skill Description |
|------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Required | | |
| ARCH Level: 4 | Solution architecture | Developing and communicating a multi-dimensional solution architecture to deliver agreed business outcomes. |
| BUSA Level: 3, 4 | Business situation analysis | Investigating business situations to define recommendations for improvement action. |
| FEAS Level: 3 | Feasibility assessment | Defining, evaluating and describing business change options for financial, technical and business feasibility, and strategic alignment. |
| REQM Level: 2, 3, 4 | Requirements definition and management | Managing requirements through the entire delivery and operational life cycle. |
| BPTS Level: 2, 3 | Acceptance testing | Validating systems, products, business processes or services to determine whether the acceptance criteria have been satisfied. |
| INCA Level: 1 | Content authoring | Planning, designing and creating textual information, supported where necessary by graphical content. |
| Desirable | | |
| BUSA Level: 5, 6 | Business situation analysis | Investigating business situations to define recommendations for improvement action. |
| FEAS Level: 4 | Feasibility assessment | Defining, evaluating and describing business change options for financial, technical and business feasibility, and strategic alignment. |
| REQM Level: 5 | Requirements definition and management | Managing requirements through the entire delivery and operational life cycle. |
| BPTS Level: 5 | Acceptance testing | Validating systems, products, business processes or services to determine whether the acceptance criteria have been satisfied. |
| Generic | | |
| AUTO | Autonomy | Describes the level of ownership and |

| SFIA Skill | SFIA Skill Name | SFIA Skill Description |
|------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Level: 3 | | accountability for results. |
| INFL Level: 3 | Influence | Describes the level of positive impact with colleagues, clients, suppliers, partners, managers, leaders, and the industry as a whole. |
| COMP Level: 3 | Complexity | Describes the scale and impact of the issues, opportunities, tasks and processes addressed in the workplace. |
| KLGE Level: 4 | Knowledge | The development and application of knowledge to achieve individual and organisational objectives in the workplace. |
| BSKL Level: 4 | Business skills | Describes the level of business skills and positive behaviours operating effectively with the required impact in the workforce. |

Appendix A SFIA Skill Levels

Levels of responsibility: Level 1 - Follow

- **Autonomy**
 - Works under close direction. Uses little discretion in attending to enquiries. Is expected to seek guidance in unexpected situations.
- **Influence**
 - Minimal influence. May work alone or interact with immediate colleagues.
- **Complexity**
 - Performs routine activities in a structured environment. Requires assistance in resolving unexpected problems. Participates in the generation of new ideas.
- **Business skills**
 - Has sufficient oral and written communication skills for effective engagement with immediate colleagues.
 - Uses basic systems and tools, applications, and processes.
 - Demonstrates an organised approach to work. Has basic digital skills to learn and use applications and tools for their role.
 - Learning and professional development — contributes to identifying own development opportunities.
 - Security, privacy and ethics — understands and complies with organisational standards.
- **Knowledge**
 - Has a basic generic knowledge appropriate to area of work. Applies newly acquired knowledge to develop new skills.

Levels of responsibility: Level 2 - Assist

- **Autonomy**
 - Works under routine direction. Uses limited discretion in resolving issues or enquiries. Determines when to seek guidance in unexpected situations. Plans own work within short time horizons.
- **Influence**
 - Interacts with and may influence immediate colleagues. May have some external contact with customers, suppliers and partners. Aware of need to collaborate with team and represent users/customer needs.
- **Complexity**
 - Performs a range of work activities in varied environments. May contribute to routine issue resolution. May apply creative thinking or suggest new ways to approach a task.
- **Business skills**
 - Has sufficient oral and written communication skills for effective engagement with colleagues and internal users/customers.

- Understands and uses appropriate methods, tools, applications and processes.
- Demonstrates a rational and organised approach to work.
- Has sufficient digital skills for their role.
- Learning and professional development — identifies and negotiates own development opportunities.
- Security, privacy and ethics — is fully aware of organisational standards. Uses appropriate working practices in own work.
- Knowledge
 - Has gained a basic domain knowledge. Demonstrates application of essential generic knowledge typically found in industry bodies of knowledge. Absorbs new information when it is presented systematically and applies it effectively.

Levels of responsibility: Level 3 - Apply

- Autonomy
 - Works under general direction. Receives specific direction, accepts guidance and has work reviewed at agreed milestones. Uses discretion in identifying and responding to complex issues related to own assignments. Determines when issues should be escalated to a higher level. Plans and monitors own work (and that of others where applicable) competently within limited deadlines.
- Influence
 - Interacts with and influences colleagues. May oversee others or make decisions which impact routine work assigned to individuals or stages of projects. Has working level contact with customers, suppliers and partners. Understands and collaborates on the analysis of user/customer needs and represents this in their work. Contributes fully to the work of teams by appreciating how own role relates to other roles.
- Complexity
 - Performs a range of work, sometimes complex and non-routine, in a variety of environments. Applies a methodical approach to routine and moderately complex issue definition and resolution. Applies and contributes to creative thinking or finds new ways to complete tasks.
- Business skills
 - Demonstrates effective oral and written communication skills when engaging on issues with colleagues, users/customers, suppliers and partners.
 - Understands and effectively applies appropriate methods, tools, applications and processes.
 - Demonstrates judgement and a systematic approach to work.
 - Effectively applies digital skills and explores these capabilities for their role.
- Learning and professional development — takes the initiative to develop own knowledge and skills by identifying and negotiating appropriate development opportunities.

- Security, privacy and ethics — demonstrates appropriate working practices and knowledge in non-routine work. Appreciates how own role and others support appropriate working practices.
- Knowledge
 - Has sound generic, domain and specialist knowledge necessary to perform effectively in the organisation typically gained from recognised bodies of knowledge and organisational information. Has an appreciation of the wider business context. Demonstrates effective application and the ability to impart knowledge found in industry bodies of knowledge. Absorbs new information and applies it effectively.

Levels of responsibility: Level 4 - Enable

- Autonomy
 - Works under general direction within a clear framework of accountability. Exercises substantial personal responsibility and autonomy. Uses substantial discretion in identifying and responding to complex issues and assignments as they relate to the deliverable/scope of work. Escalates when issues fall outside their framework of accountability. Plans, schedules, and monitors work to meet given objectives and processes to time and quality targets.
- Influence
 - Influences customers, suppliers, and partners at account level. Makes decisions which influence the success of projects and team objectives. May have some responsibility for the work of others and for the allocation of resources. Engages with and contributes to the work of cross-functional teams to ensure that customers and user needs are being met throughout the deliverable/scope of work. Facilitates collaboration between stakeholders who share common objectives. Participates in external activities related to own specialism.
- Complexity
 - Work includes a broad range of complex technical or professional activities, in a variety of contexts. Investigates, defines, and resolves complex issues. Applies, facilitates, and develops creative thinking concepts or finds innovative ways to approach a deliverable.
- Business skills
 - Communicates fluently, orally and in writing, and can present complex information to both technical and non-technical audiences when engaging with colleagues, users/customers, suppliers, and partners.
 - Selects appropriately from, and assesses the impact of change to applicable standards, methods, tools, applications, and processes relevant to own specialism.
 - Demonstrates an awareness of risk and takes an analytical approach to work.
 - Maximises the capabilities of applications for their role and evaluates and supports the use of new technologies and digital tools.
 - Contributes specialist expertise to requirements definition in support of proposals.
- Shares knowledge and experience in own specialism to help others.

- Learning and professional development — maintains an awareness of developing practices and their application and takes responsibility for driving own development. Takes the initiative in identifying and negotiating their own and supporting team members' appropriate development opportunities. Contributes to the development of others.
- Security, privacy and ethics — fully understands the importance and application to own work and the operation of the organisation. Engages or works with specialists as necessary.
- Knowledge
 - Has a thorough understanding of recognised generic industry bodies of knowledge and specialist bodies of knowledge as necessary. Has gained a thorough knowledge of the domain of the organisation. Is able to apply the knowledge effectively in unfamiliar situations and actively maintains own knowledge and shares with others. Rapidly absorbs and critically assesses new information and applies it effectively.

Levels of responsibility: Level 5 - Ensure, advise

- Autonomy
 - Works under broad direction. Work is often self-initiated. Is fully responsible for meeting allocated technical and/or group objectives. Analyses, designs, plans, executes, and evaluates work to time, cost and quality targets. Establishes milestones and has a significant role in the assignment of tasks and/or responsibilities.
- Influence
 - Influences organisation, customers, suppliers, partners and peers on the contribution of own specialism. Makes decisions which impact the success of assigned work, i.e. results, deadlines and budget. Has significant influence over the allocation and management of resources appropriate to given assignments. Leads on user/customer and group collaboration throughout all stages of work. Ensures users' needs are met consistently through each work stage. Builds appropriate and effective business relationships across the organisation and with customers, suppliers, and partners. Creates and supports collaborative ways of working across group/area of responsibility. Facilitates collaboration between stakeholders who have diverse objectives.
- Complexity
 - Implements and executes policies aligned to strategic plans. Performs an extensive range and variety of complex technical and/or professional work activities. Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Engages and coordinates with subject matter experts to resolve complex issues as they relate to customer/organisational requirements. Understands the relationships between own specialism and customer/organisational requirements.
- Business skills
 - Demonstrates leadership in operational management.
 - Analyses requirements and advises on scope and options for continual

- operational improvement.
- Assesses and evaluates risk.
- Takes all requirements into account when making proposals.
- Shares own knowledge and experience and encourages learning and growth.
- Advises on available standards, methods, tools, applications and processes relevant to group specialism(s) and can make appropriate choices from alternatives.
- Understands and evaluates the organisational impact of new technologies and digital services.
- Creatively applies innovative thinking and design practices in identifying solutions that will deliver value for the benefit of the customer/stakeholder.
- Clearly demonstrates impactful communication skills (oral, written and presentation) in both formal and informal settings, articulating complex ideas to broad audiences.
- Learning and professional development — takes initiative to advance own skills and identify and manage development opportunities in area of responsibility.
- Security, privacy and ethics — proactively contributes to the implementation of appropriate working practices and culture.
- Knowledge
 - Is fully familiar with recognised industry bodies of knowledge both generic and specific, and knowledge of the business, suppliers, partners, competitors, and clients. Develops a wider breadth of knowledge across the industry or business. Applies knowledge to help to define the standards which others will apply.

Levels of responsibility: Level 6 - Initiate, influence

- Autonomy
 - Has defined authority and accountability for actions and decisions within a significant area of work, including technical, financial, and quality aspects. Establishes organisational objectives and assigns responsibilities.
- Influence
 - Influences policy and strategy formation. Initiates influential relationships with internal and external customers, suppliers, and partners at senior management level, including industry leaders. Leads on collaboration with a diverse range of stakeholders across competing objectives within the organisation. Makes decisions which impact the achievement of organisational objectives and financial performance.
- Complexity
 - Contributes to the development and implementation of policy and strategy. Performs highly complex work activities covering technical, financial, and quality aspects. Has deep expertise in own specialism(s) and an understanding of its impact on the broader business and wider customer/organisation.
- Business skills
 - Demonstrates leadership in organisational management.

- Understands and communicates industry developments, and the role and impact of technology.
- Manages and mitigates organisational risk.
- Balances the requirements of proposals with the broader needs of the organisation.
- Promotes a learning and growth culture in their area of accountability.
- Leads on compliance with relevant legislation and the need for services, products and working practices to provide equal access and equal opportunity to people with diverse abilities.
- Identifies and endorses opportunities to adopt new technologies and digital services.
- Creatively applies a wide range of innovative and/or management principles to realise business benefits aligned to the organisational strategy.
- Communicates authoritatively at all levels across the organisation to both technical and non-technical audiences articulating business objectives.
- Learning and professional development — takes the initiative to advance own skills and leads the development of skills required in their area of accountability.
- Security, privacy and ethics — takes a leading role in promoting and ensuring appropriate working practices and culture throughout own area of accountability and collectively in the organisation.
- Knowledge
 - Has developed business knowledge of the activities and practices of own organisation and those of suppliers, partners, competitors, and clients. Promotes the application of generic and specific bodies of knowledge in own organisation. Develops executive leadership skills and broadens and deepens their industry or business knowledge.

Levels of responsibility: Level 7 - Set strategy, inspire, mobilise

- Autonomy
 - At the highest organisational level, has authority over all aspects of a significant area of work, including policy formation and application. Is fully accountable for actions taken and decisions made, both by self and others to whom responsibilities have been assigned.
- Influence
 - Inspires the organisation, and influences developments within the industry at the highest levels. Makes decisions critical to organisational success. Develops long-term strategic relationships with customers, partners, industry leaders and government. Collaborates with leadership stakeholders ensuring alignment to corporate vision and strategy.
- Complexity
 - Applies the highest level of leadership to the formulation and implementation of strategy. Performs extensive strategic leadership in delivering business value through vision, governance, and executive management. Has a deep understanding of the industry and the implications of emerging technologies for

the wider business environment.

- Business skills
 - Has a full range of strategic management and leadership skills.
 - Communicates the potential impact of emerging practices and technologies on organisations and individuals and assesses the risks of using or not using such practices and technologies.
 - Establishes governance to address business risk.
 - Ensures proposals align with the strategic direction of the organisation.
 - Fosters a learning and growth culture across the organisation.
 - Assess the impact of legislation and actively promotes compliance and inclusivity.
 - Advances the knowledge and/or exploitation of technology within one or more organisations.
 - Champions creativity and innovation in driving strategy development to enable business opportunities.
 - Communicates persuasively and convincingly across own organisation, industry and government to audiences at all levels.
 - Learning and professional development — ensures that the organisation develops and mobilises the full range of required skills and capabilities.
 - Security, privacy and ethics — provides clear direction and strategic leadership for the implementation of working practices and culture throughout the organisation.
- Knowledge
 - Has established a broad and deep business knowledge including the activities and practices of own organisation and a broad knowledge of those of suppliers, partners, competitors, and clients. Fosters a culture to encourage the strategic application of generic and specific bodies of knowledge within their own area of influence.

URL: <https://sfia-online.org/en/sfia-8/responsibilities/level-7>

