DEVELOPING OR REVISING PROGRAM GOALS

This document provides guidelines for developing and/or revising program goals for BCIT's academic programs.

This job aid will help you to:

- Write new Program Goals
- Revise existing Program Goals

Program Goals

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Introduction

BCIT is committed to developing and maintaining high quality educational programs. Program goals reflect our graduates' capability and are a crucial component of high-quality programs. Program goals allow the institution to align its educational offerings with the needs of industry and society. By setting clear, achievable goals for each program, BCIT can ensure that its graduates possess the skills and knowledge necessary to succeed in their chosen fields. Additionally, having relevant program goals enables BCIT to stay current and adapt to changing industry demands and technologies, ensuring that its graduates remain competitive in the job market. Ultimately, this allows BCIT to fulfill its mission of "Partnering learners and industry for success through workforce development."

At a minimum, existing program goals are reviewed during a cyclical program review and/or during a curriculum review. They can also be revised periodically in response to faculty review of outcome and goal data, with input from stakeholders including industry, alumni, and students. Creating program goals is also foundational to the development of any new program.

Developing Program Goals

Program Goals: Relevant and Rigorous

Program goals identify the competencies that graduates of a program achieve upon completion of the program. Typically, program goals do not describe discrete knowledge taught in individual courses but rather they provide a holistic synthesis of learning across a program.

Program goals should reflect the rigour of the academic credential standards (BCIT 5401-PR1 – Credentialing of Programs). They require measurement - quantification - of performance or level of proficiency. Programs typically have six to twelve program goals, depending on the credential. Program goals are the foundation for course-level learning outcomes. These goals describe enduring student learning that is observable and can be demonstrated through appropriate assessment. Effective program goals describe, in measurable terms, a graduate's competency by defining expectations for knowledge, critical thinking, communication, and professional/disciplinary skills. Here are several examples:

At the completion of this program, graduates will be able to:

Diploma:

- Develop a business plan describing the opportunity from initial concept to full operation, including pro-forma financial statements.
- Apply conflict resolution skills to a variety of safety issues and problems on a construction site

Bachelor:

- Critically analyze the impact of regulations and legal frameworks on professional practice and ethical decision making in the creative industries.
- Evaluate the appropriateness of different approaches to solving problems using current methodologies for software analysis, design, development, and evaluation.

Masters:

- Critically assess degraded ecosystems at different temporal and spatial scales and locations (local to international) and identify primary causal factors contributing to the declining state of target ecosystems.
- Develop solutions which leverage smart grid technologies to increase accommodation of renewable, distributed energy resources in order to meet social, political, or environmental sustainability targets.

Program goals describe what is to be learned and achieved by graduates in a program. They are not meant to be a description of the structure of the program or the method of learning.

Program goals reflect the content of the curriculum, and as curriculum evolves, learning outcomes which are linked to program goals will change. Program goals should be relevant and rigorous. *Relevant* goals reflect the current state of the discipline, industry critical skills and knowledge, societal needs and values. *Rigorous* goals require an appropriate degree of academic depth, precision and thoroughness to be met successfully.

For programs accredited by professional associations, program goals should reflect the competency profile or graduate attributes as defined by professional accrediting bodies and industry standards.

Components of Effective Program Goals

Effective program goals:

1. Reflect the highest level of achievement expected of students at the completion of the program, i.e. novice graduate competency level. Program goals are generally introduced with the phrase, "At the completion of this program, graduates will be able to …". This phrase places the emphasis on the final skills and knowledge that students will acquire by completing the program.
2. Focus on what students will know and be able to do and demonstrate through appropriate assessment. All disciplines have a body of core knowledge that students must learn to be successful as well as a core set of applications of that knowledge in professional settings. Programs may include cognitive, psychomotor, and affective goals.

Example of **cognitive domain** Program Goals:

- *Identify safety risks, design prevention plans, and implement safety training on a construction site. (Construction Management)*
- *Create an accurate estimate of materials and labour costs to complete a building project. (Carpentry)*
- *Evaluate the economic viability of a complex clean energy system using technical analysis tools learned in the program. (Energy Engineering)*

Example of **psychomotor domain** Program Goals:

- *Administer medications safely according to practice and legal guidelines. (Nursing)*
- *Create and efficiently implement a field sampling strategy for water and wood samples using common tools learned in the program. (Environmental Science)*
- *Demonstrate the safe use of appropriate tools, materials and techniques required to carry out work on a building project. (Carpentry; Steel Trades)*

Example of **affective domain** Program Goals:

- *Demonstrate cultural sensitivity and apply professional ethical standards in interactions with patients in a health care setting. (Health Science)*
- *Advocate for the needs of diverse employees in their organization. (Human Resources)*

- *Through participation in community service, reflect on personal contributions to societal betterment and articulate the value of civic engagement. (Environmental Science)*

3. Begin with a verb that best describes the action involved in the observed behaviour. A guiding question is: what cognitive processes or skills do students engage in when demonstrating the behavior? For example, "Analyze…", "Evaluate…", "Apply…", or similar verbs that specifically describe the behavior expected. Remember to choose a verb that is at the highest level appropriate for your credential type. Refer to BCIT policy 5401-PR1 Credentialing of Programs.

4. Program goals do not typically include statements beginning with "list…", "describe…", "discuss" or similar verbs since these tend not to describe the highest level of achievement expected of students. These types of verbs are more appropriate at the level of learning outcomes for individual courses.

5. Describe observable and measurable actions or behaviors. Effective program goals present a core set of observable, measurable behaviors. Measurement tools vary from quizzes and tests to complex rubrics. There are some verbs to be avoided when writing program goals because they describe behaviors that are internal and not observable. Here is a list of verbs and phrases to avoid:

   - Understand
   - Appreciate
   - Become familiar with
   - Learn about, think about
   - Become aware of …, gain an awareness of

Recommended Steps for Developing and Revising Program Goals

1. Before launching this project, connect with the BCIT Learning and Teaching Centre and request Instructional Development Consultant (IDC) support.
2. If program goals exist, review them with the faculty, and industry and alumni when appropriate, for currency and relevancy of the goals. (This might be done during a program review, curriculum review, or major change process.) Consider whether the program goals address all competencies that are critical in the respective field of practice.
   - Additionally, check that all program goals align to the learning outcomes and content taught in the current course line up. If not, consider if a program goal should be added/removed/updated or if a course must be modified so

that the goal can be met. Analysis of alignment among program goals and courses is often captured in a program goal integration table, an example of which can be found in the appendices of the templates for program proposals and the program review self-study report.

3. If program goals don't exist, a starting point could be the major themes or course clusters that exemplify your program (e.g. Design, Industry foundations, Project Management, etc.). Your program map may have the program clusters identified, but it is important to think critically if these clusters capture the comprehensive complex nature of the program curriculum. Questions to ask during brainstorming:
    - What does the proficient graduate know?
    - What can the graduate do?
    - What does the graduate care about?
    - What are the critical skills without which a student would not be successful in a given field of practice?

4. Consult any industry standards or set of competencies that graduates are expected to have upon the completion of the program.
5. Consult program goals from similar programs offered by other post-secondary institutions, if possible. Consult program goals from other BCIT programs at the same credential level to see the range of graduate outcomes reflected for that credential type.
6. Ensure that your program includes goals that reflect skills employers value, including general education skills such as communication, teamwork, critical thinking, leadership, and cultural sensitivity.
7. In addition to the six to twelve main program goals, some programs may develop enabling or supporting goals that support each main program goal at a more granular level. This may be beneficial for programs that have to align their curriculum to detailed competencies developed by the respective accrediting organization.
8. Write the program goals concisely and clearly. While there is no requirement regarding the number of program goals, most programs range between 6-12 goals.
9. Allow faculty time to review and reflect on the new program goals. Ask for feedback from students, alumni and industry (including the Program Advisory Committee) as needed, and make necessary revisions.

Program Goals and Curriculum

Program goals play a key role in ensuring a coherent and focused curriculum. This is achieved through aligning individual courses with the program goals in a way that helps students progressively develop the competencies outlined in the program goals. Such alignment also helps eliminate any redundancies and gaps in the curriculum.

Summative assessments in each course provide clear evidence of students' progression and achievement of the competencies declared in the program goals. Alignment of assessments with the program goals can provide important insights of where additional support or resources are needed to ensure that students achieve the required knowledge and skills.

A common approach to achieve curriculum alignment is engaging program faculty in a curriculum mapping activity. The result of such an activity is a curriculum map that is a visual depiction of how each course helps students advance in achieving the program goals. An Instructional Development Consultant from the Learning and Teaching Centre can facilitate such an activity for your program.

At BCIT, curriculum alignment is documented in the Program Goals Integration and Demonstration of Program Goals Achievement sections of the proposals for new programs as well as in the self-study report during program reviews.