

Writing Program Learning Outcomes for Aligned Learning

Foundations of Quality Student Learning



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Outline

- Introduction
- Resources
- Examples
- Levels of Learning Outcomes
- Definition
- Importance
- Relationships of all Outcomes
- Art and Science of Writing Useful Program Learning Outcomes
- Fix the “Not So Great” Program Learning Outcomes
- Getting Started Ideas

Introduction

Head, Hands and Heart

Wheat
Yeast
Sugar



What **knowledge** is essential for success in your program?

Do By Hand and By Machine
Adapt Recipes



What **skills** and **abilities** are essential for success in your program?

Safety
Proud Regardless of Work Env.



What **attributes**, **qualities** and **values** are essential for success in your program?

LEARNING OUTCOMES

DEFINING LEARNING OUTCOMES

WHY USE LEARNING OUTCOMES?

ALIGNING WITH ASSESSMENT

LEARNING OUTCOMES VS. OBJECTIVES

THE KEY PARTS

HOW TO WRITE THEM

CLASSIFICATIONS OF LEARNING

IMPROVING EXISTING OUTCOMES

BLOOM

FINK

LAFEVER

WEBB

Lots of good learning outcome material already on NIC Teach Anywhere site (for both course and program learning outcomes)

Law and Justice Studies - Liberal Arts Diploma



Example 1

[Overview](#)

[Program Outcomes](#)

[Admission Requirements](#)

[Courses](#)

[Tuition & Fees](#)

[Find Out More](#)

Upon successful completion of an Associate of Arts or Liberal Arts Diploma program, learners will be able to:

1. Explain terms, concepts, and theories of the discipline(s)
2. Read, write and communicate effectively and creatively across academic disciplines
3. Ask informed questions to deepen the level of enquiry
4. Use quantitative and qualitative evidence to support claims
5. Research and analyze evidence from scholarly and professional publications
6. Synthesize and summarize literature and data
7. Demonstrate developing critical, creative thinking, and problem-solving skills
8. Use current and emerging technology
9. Demonstrate collaborative skills in a multicultural environment
10. Conduct themselves in a professional and ethical manner in an academic environment

Bachelor of Media Arts

The Bachelor of Media Arts prepares students for the changing demands of digital media industries by training technically skilled, creative, and collaborative artists, with an awareness of the history and ethical demands of the digital media field. Students gain professional communication, creative problem solving, and project management skills. Concentrations allow students to specialize based on their chosen career paths and creative passions.



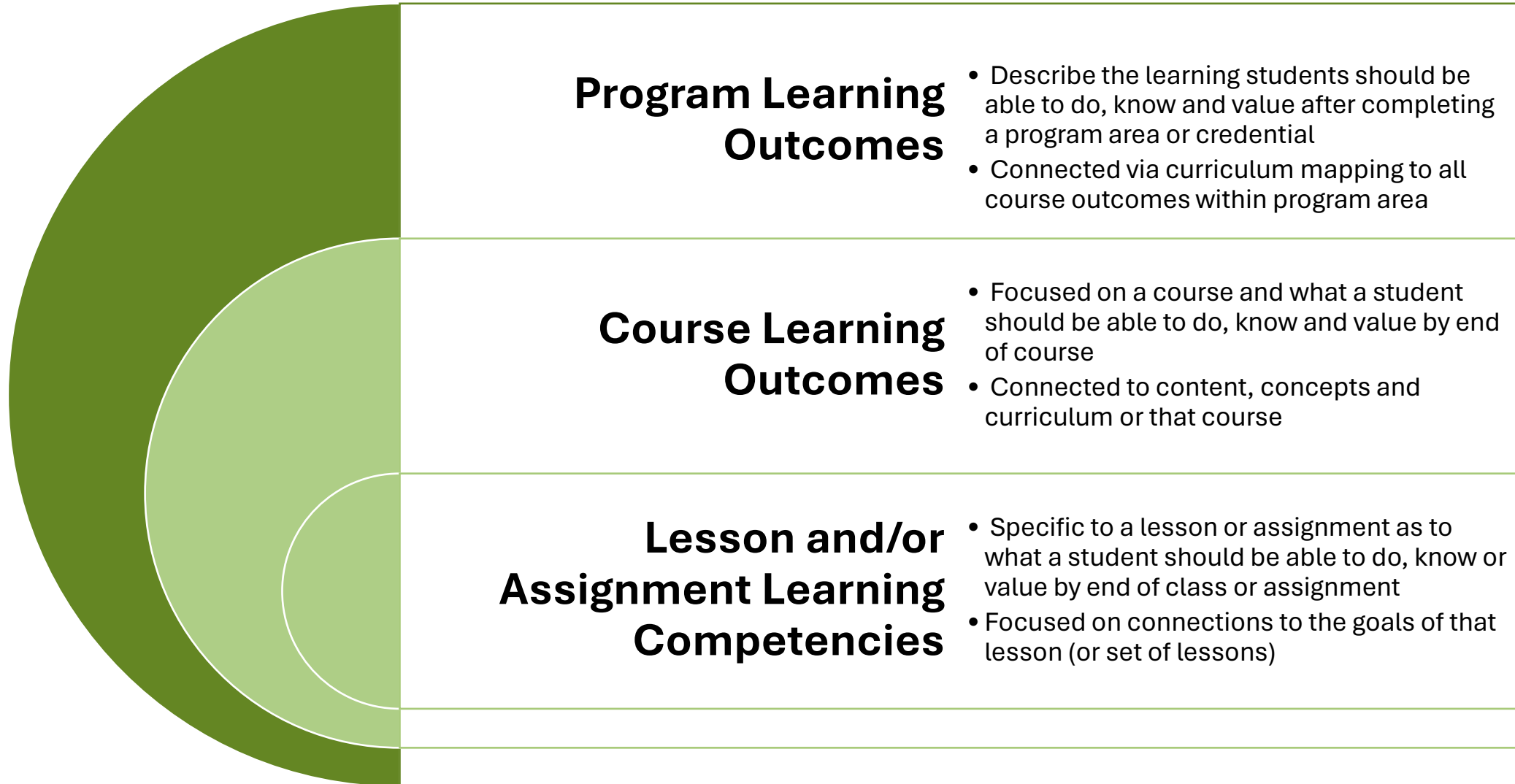
Example 2

Upon successful completion of the BMA, students will be able to:

1. Situate digital media in historical, cultural, social, and theoretical context.
2. Develop skills in two or more distinct creative fields.
3. Apply professional communication practices in written, oral, and visual forms.
4. Create compelling narratives and stories using digital media.
5. Develop collaborative creative team skills.
6. Develop self-directed ideation, problem solving, and project management skills.
7. Produce creative work using digital media technologies (e.g. films, animation, documentaries, websites, games, interactive learning modules).
8. Apply ethical principles in information sharing, intellectual property, and media law.
9. Perform in creative and managerial roles to professional standards.

Levels of Learning Outcomes

Learning outcomes can be written at the assignment/lesson, course, or program level. At the institutional level they are often referred to as graduate attributes.



Institution

Areas, Themes, Focus Areas Students Build Competencies in During Their Learning Journey
(**Institutional Learning Outcomes or Graduate Attributes**)

Critical Thinking and Problem-Solving Skills

Program

High Level Statements about Knowledge, Skills and Abilities Students Should be Able to Demonstrate Upon Graduation from Program (**Program Learning Outcomes**)

Students should be able to apply critical thinking skills to the process of developing solutions for key local environmental issues.

Course

Broad Statements about Knowledge, Skills and Abilities Students Should be Able to Demonstrate Upon Completion of Course (**Course Learning Outcomes**)

Students should be able to apply three of the key critical thinking skills (analyzing, comparing and synthesizing) in the development of solutions to a variety of local environmental developments and challenges.

Lesson/Assignment/Activity/Assessment

Specific Statements about Knowledge, Skills and Abilities Students Should be Able to Demonstrate Upon Completion of an Assignment or Activity (**Competencies**)

Project: Complete an analysis of the Comox Valley bird sanctuary development. Compare the proposals from the two developers. Synthesize the situation and propose two solutions.

Levels of Learning Outcomes: Examples

Program Learning Outcomes: Definition

- **written for students** to communicate the **critical learning, concepts and learning expectations** required to obtain the **credential**;
- **clear and concise** statements that describe what successful students **should have achieved** in knowledge, skills and abilities by the **end of the program of study**;
- are **broader in context** and expectations **than course** learning outcomes;
- requires a student to **take more than one course** to build the skills and knowledge to grasp the essentials of a program learning outcome;
- **examples** of successful student learning are **gathered as evidence** for each program learning outcome;
- **must include:**
 - 1) measurable and observable demonstration of learning (**action**)
 - 2) an expected level or standard (**criteria, specifics**)
 - 3) description of how to achieve the action or description of learning will be demonstrated (**context or condition**)

Program Learning Outcomes

Example from Life Sciences

Design scientific studies to test specific hypotheses that include design elements typically found in biological and life sciences by retrieving, evaluating and integrating a relevant body of existing research and knowledge.

measurable and observable
demonstration of learning (**action**)

Design scientific studies to test specific hypotheses **that include design elements typically found in** biological and life sciences by retrieving, evaluating and integrating a relevant body of existing research and knowledge.

an expected level or standard
(**criteria, specifics**)

Design scientific studies to test specific hypotheses that include design elements typically found in **biological and life sciences** by retrieving, evaluating and integrating a relevant body of existing research and knowledge.

Discipline specific

Design scientific studies to test specific hypotheses that include design elements typically found in biological and life sciences **by retrieving, evaluating and integrating a relevant body of existing research and knowledge.**

description of how to achieve the
action or description of learning will be
demonstrated (**context or condition**)

Program Learning Outcomes

Example from Environmental Management

Formulate practical strategies for addressing environmental problems and ensuring the sustainable management of environments and ecosystems, given realistic political, time and resource constraints.

measurable and observable
demonstration of learning (**action**)

Formulate practical strategies **for addressing environmental problems and ensuring the sustainable management of environments and ecosystems**, given realistic political, time and resource constraints.

an expected level or standard
(**criteria, specifics**)

Formulate practical strategies for addressing environmental problems and ensuring the sustainable management of environments and ecosystems, **given realistic political, time and resource constraints**.

description of how to achieve the
action or description of learning will be
demonstrated (**context or condition**)

LESS

USEFUL

Program Learning Outcomes

Understand sustainable management

Appreciate the complexity of interpretations of sacred texts

Know critical theories of discourse analysis

Not observable. How do students demonstrate their understanding, appreciation and knowledge³?

Be exposed to various tensions in contemporary media

Not student-centred. What will the student be able to do?

Demonstrate teamwork

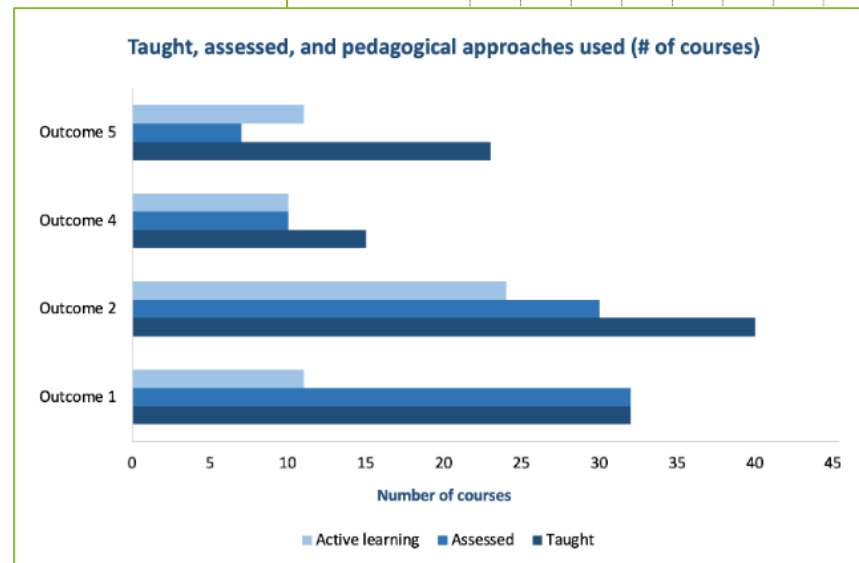
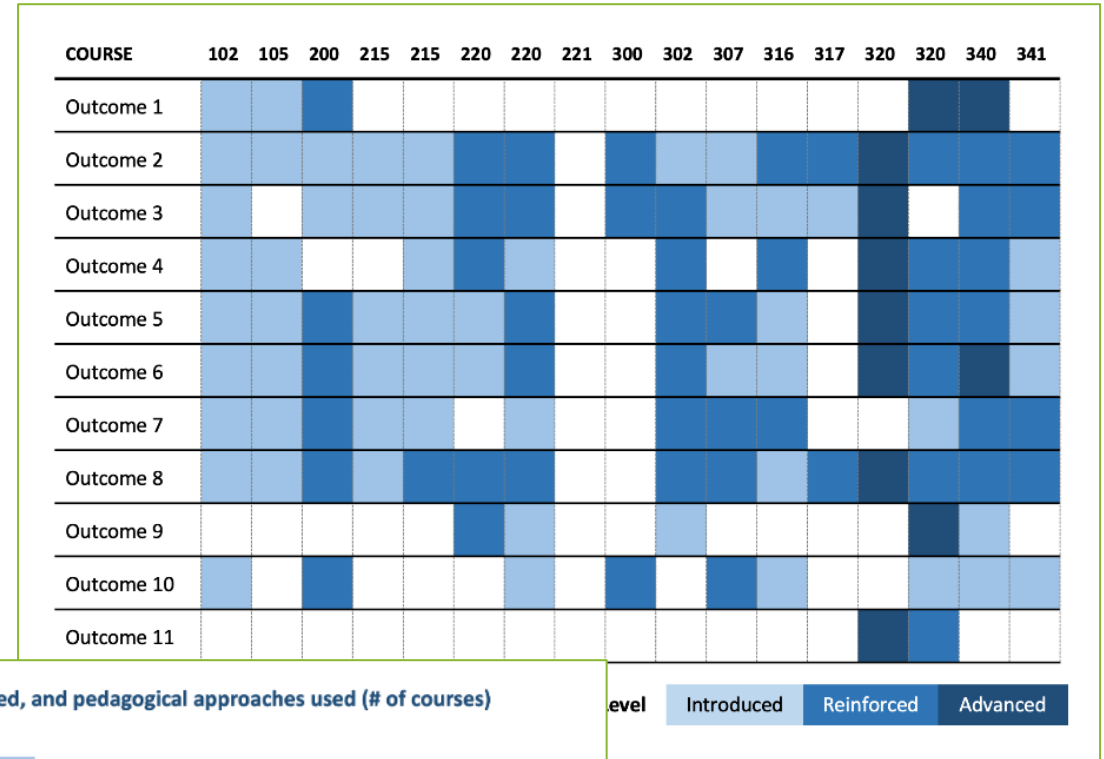
Not specific: What does that look like in the context of your discipline?

List the functions of various glands and organs in the human body

Level of cognitive complexity too low for a program graduate

Program Learning Outcomes: Importance

- Communicate what is **critical, intentional and special** about a program
- Indicate to students what is **valued** and what is needing to be **demonstrated**
- **Set the stage** for what students should be learning
- Helps in **decision making** with the program
- Helps in conducting **curriculum mapping exercises** to see if all courses are aligned



Program Learning Outcomes: Importance

Benefits of LOs for students

- Clarify the critical knowledge, skills and values that students will achieve in a course or program to foster transparency, inform program selection and improve their ability to communicate these outcomes to others.
- Enhance learning by providing guidance and setting clear expectations.



Benefits of LOs for instructors

- Allow for reflection on the purpose of a course or program.
- Foster coordination of teaching strategies, learning activities, course materials and assessments.
- Advance conversations between and among faculty members about the ways that courses are aligned and connected with each other and program outcomes.



Benefits of LOs for institutions

- Reinforce institutional commitment to high-quality teaching and learning.
- Increase transparency, credibility and comparability of outcomes.
- Offer the potential to simplify credit transfer and facilitate student mobility.
- Allow for identification of gaps or overlap in course or program offerings.



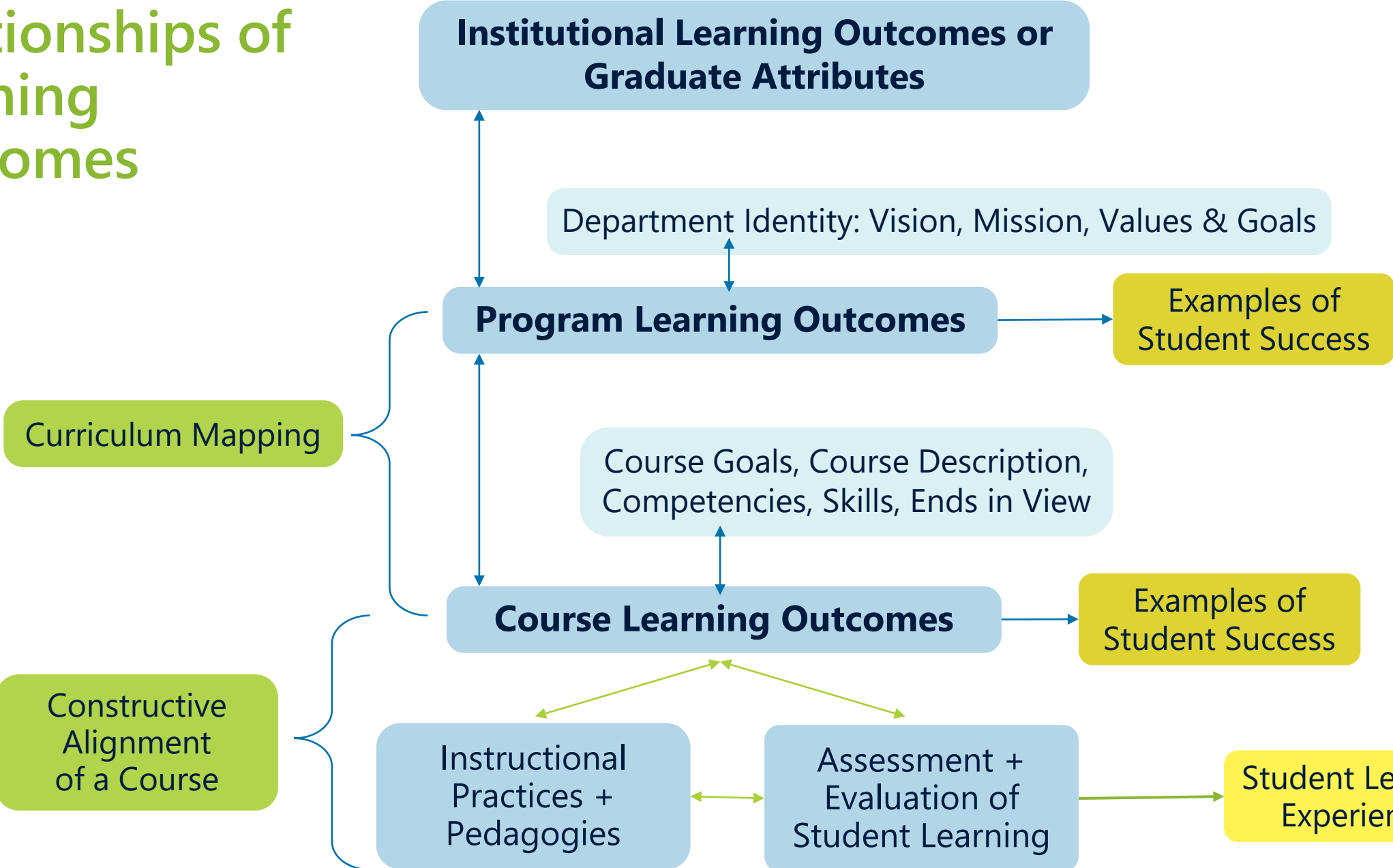
Benefits of LOs for employers

- Promote understanding of prospective graduates' knowledge, skills and abilities.
- Engage employers to ensure teaching and learning is designed to meet industry needs.



Sources: Adam (2002); Council of Ontario Universities (2011); Goff et al. (2015); Greenleaf et al. (2008); Hutchings (2016); Kolomitro & Gee (2015); Lennon (2010)

Relationships of Learning Outcomes



Clarification of Goals, Descriptions, Concepts + Outcomes

Course Goals → **Teacher-Perspective:** overarching statements about the intentions and goals of the course

Course Description → **Teacher-Perspective:** what the course is all about and what learners could expect core learning to be

Course Ends in View (Nursing) → **Teacher-Perspective:** outlining the purpose of the learning activity, description about the progress along the nursing pathway as to what learners will experience via actions and activities, what opportunities there will be for their further development and what skills and abilities will they continue to develop and explore

Course Concepts → **Teacher-Perspective:** listing of the core concepts and content the course will be about (sometimes sounds like goals, sometimes a list of topics, sometimes week by week titles)

Course Learning Outcomes → **Student-Perspective:** statements about the anticipated learning that should be demonstrated by students by the end of the course that tells students what they will be expected to demonstrate. Outcomes are aligned with assessments and instructional strategies.

Program Learning Outcomes → **Student-Perspective:** statements about the anticipated learning that should be demonstrated by students by the end of the program/credential that students what they will be expected to demonstrate. Outcomes are aligned with all courses, all course outcomes, key assessments and overall instructional strategies.

Art

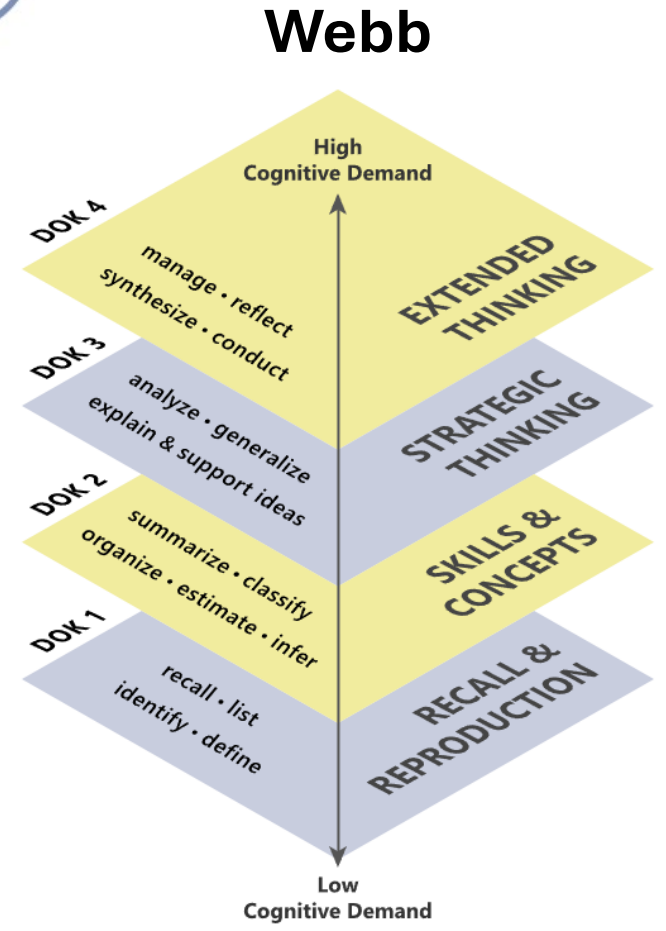
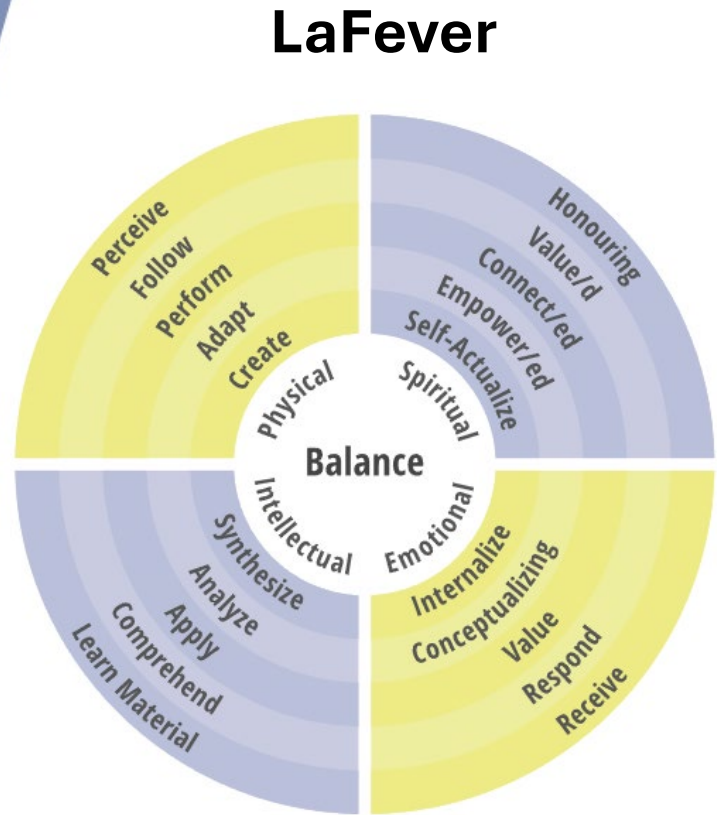
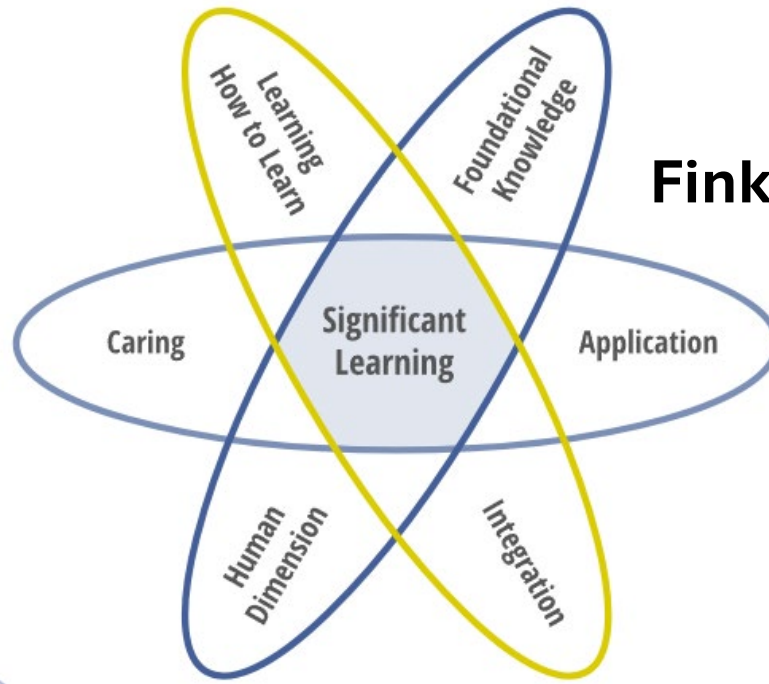
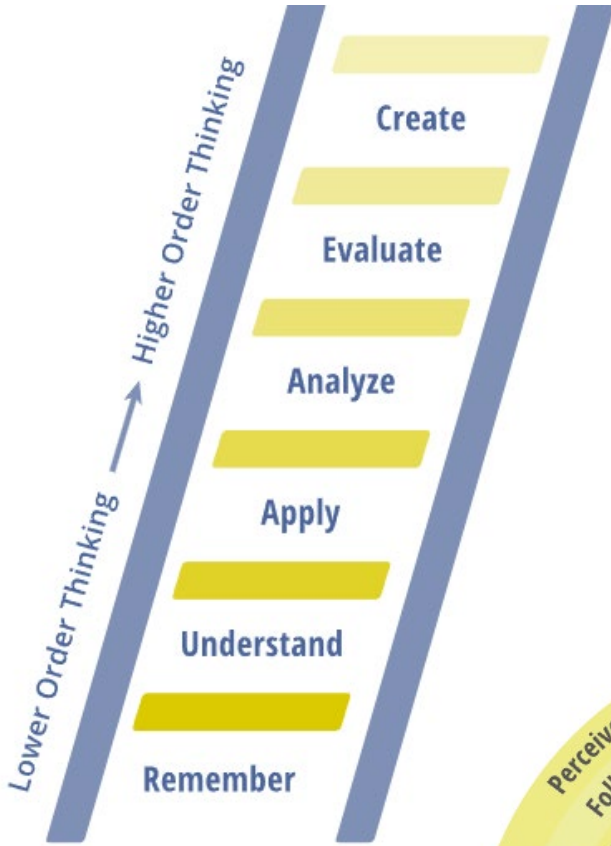
Art & Science of Writing Program Learning Outcomes

Science

- Discipline-Related: Nuances and Unique Aspects
- Defensible Deviations and Custom Creations
- Pre-Amble Context to Set Stage and Prevent Longer Statements
- Respect Non-Colonial Aspects and Varying Perspectives
- Freedom of Expression to Meet Learners Where At
- Not Fitting Into or Ticking Every Box or Expected Items



- Measurable, Observable, Tangible Demonstrations of Student Learning (~ 7 - 10)
- Connected to Program Learning Intentions, Institutional Directions and Student Learning Needs
- Evidence of Student Learning and Examples Gathered
- Written in Understandable Language
- Relevant and Relatable for Students
- One Demonstration of Learning per Statement



Triple A + 1 PLOs!



Alignable

- Aligned to all courses via curriculum mapping
- Aligned with assessment and teaching strategies

Assessable

- Measurable – varied measurements of student learning against criteria
- Observable – instructor can see (and hear, touch, smell, taste) demonstrations of learning

Accountable

- Evidence (exemplars) of student work for each program learning outcome from across many courses
- Provides accountable successful learning

Adaptable

- Able to flex for disciplines, curriculum, external bodies / accreditation, context, course learning, currency and needs of learners

Fake Scenario: Diploma – Science of Learning

At West Coast College, the departments of Business Administration, Humanities and Social Sciences have come together to develop a new diploma around the science of learning. Graduates from this diploma are expected to find work in a variety of sectors (e.g., educators in K-12 and post-secondary education, leadership, management, human resources, psychology, counselling, advising, coaching, industry training and development, health sciences, curriculum development etc.)

Learning sciences is an interdisciplinary field that involves learning in a wide range of social contexts. The underpinnings of neuroscience, cognitive science, instructional design, data analytics, anthropology, linguistics, computer science, psychology, and education have formed the foundation of the discipline.

The discipline is expected to evolve and has already seen significant growth in the past 10-15 years in K-12 and higher education where metacognition, learning strategies and a focus on debunking myths and misconceptions about learning are forming new learning journals, workshops and publications.

The curriculum draws upon research and theory around themes such as these:

- The role of social and cultural contexts in learning, in both formal and informal learning environments, including classrooms, schools, museums, workplaces and homes
- Cognition and the processes through which individual learning takes place
- Major educational issues and trends, myths and misconceptions around learning
- Design of learning environments especially with new media and technology advancements
- Learning and instruction in differing contexts (e.g., hospitals, workplace, K-12, PSE schools)
- Self-regulation, metacognition, motivation, and emotion

Draft Program Learning Outcomes – Needing Help!

Through coursework, mentoring, apprenticeship, assignments, research projects and experiential learning opportunities, **graduates** of the diploma in Learning Sciences **should be able to:**

1. Learn all knowledge of cognitive science and the learning sciences
2. Explain socio-cultural foundations of learning and instruction
3. Understand educational issues and trends, myths and misconceptions
4. Apply knowledge to design of learning environments, including those environments where technologies and new media are integrated
5. Value the research activities that are related to learning science work
6. Can design, apply and analyze and then evaluate various learning environments for optimal learning
7. Do experiential learning opportunities

Internet Scan

Selkirk  College

Program Areas

Academic Upgrading & Development

The Arts

Business

Environment & Geomatics

Health & Human Services



BA Program Learning Outcomes

Students will demonstrate the ability to:

1. Read closely in a variety of forms, styles, structures, and modes, and articulate the value of close reading in the study of literature, creative writing, or rhetoric.
2. Show familiarity with major literary works, genres, periods, and critical approaches to British, American, and World Literature.
3. Write clearly, effectively, and creatively, and adjust writing style appropriately to the content, the context, and nature of the subject.
4. Develop and carry out research projects, and locate, evaluate, organize, and incorporate information effectively.
5. Articulate the relations among culture, history, and texts, including structures of power.



POLITICAL SCIENCE

UFV / POLITICAL SCIENCE / PROGRAM LEARNING OUTCOMES

Program Learning Outcomes

Political Science Learning Outcomes

We want students to have a solid grounding in the history of politics, and the ability to critically analyse issues and current events. We want our students to go beyond the known facts, and develop new understandings of politics and political processes, and be active participants in providing innovative solutions to societal problems. We believe that it is important for students to learn how to manage ambiguity and marshal arguments. To these ends, the political science department is committed to the following learning outcomes which we consciously incorporate into our courses:

Knowledge of the Discipline

Students will gain an understanding of the major concepts, theoretical perspectives and approaches, and historical and contemporary debates in the discipline of political science and its subfields; Political Theory, Canadian Politics, Comparative Politics, and International Relations.

Research Methods

Students will develop an understanding and be able to apply both diverse quantitative and qualitative research methods in the discipline of political science to design, conduct, analyze and write research reports and essays.

Critical Thinking Skills

Students will develop critical and creative thinking skills which are essential ingredients in identifying, defining, and analyzing political problems and providing solutions.

Application of Knowledge in Political Science

Students will develop competency in the discipline and be confident to apply diverse theories, concepts, policy approaches, and principles to address local, national, international, transgovernmental and transnational challenges.

Head, Hands and Heart as

Metaphors for Essential Learning Upon
Completion of Program



What **knowledge** is essential for success in your program?







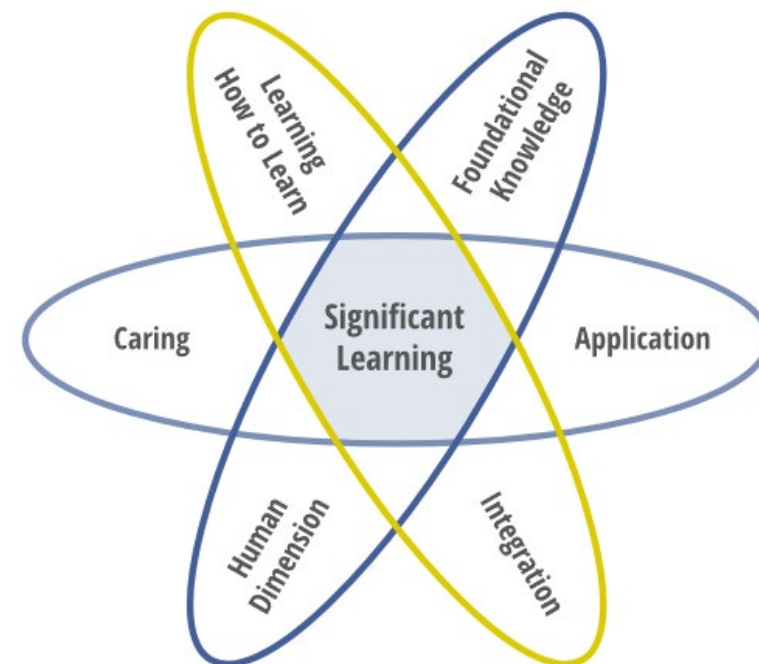
What **skills** and **abilities** are essential for success in your program?



What **attributes**, **qualities** and **values** are essential for success in your program?

Program Learning Outcomes: Common Areas

-  1. Foundational Knowledge
 -  2. Foundational Skills/Abilities
 -  3. Application of Foundational Knowledge and Skills
 -  4. Communication (Read, Write, Speak)
 -  5. Learning How to Learn
 -  6. Attributes, Qualities – Human Dimension
 -  7. Thinking and Problem - Solving
 -  8. Integration/Extended Thinking – Synthesizing, Creating, Evaluating
-   Leadership
-  Research
-  Work Integrated Learning



Checklist – Program Learning Outcomes

- ✓ Are they written in **student-friendly** language?
- ✓ Could **multiple audiences** (students, instructors, employers, administrators, other institutions) understand the program learning outcomes?
- ✓ Are they with actions that are **observable** and **measurable**?
- ✓ Are they **broad enough** to **align** with all courses?
- ✓ Do they include an **action verb** (demonstration or performance), **qualifier** (criteria) and **learning statement** (condition?)
- ✓ Do they convey the **purpose** of the program?
- ✓ Do they convey what is **important or unique** about the program?
- ✓ Do they outline the **critical competencies, skills and knowledge** that students are expected to learn by the end of the program?

Writing Program Learning Outcomes for Aligned Learning



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