2

Introductions & Land Acknowledgement

We would like to begin by acknowledging that the land on which we gather is located in the unceded territory of the Syilx Okanagan Peoples.

Photo of 2 adults, 2 children looking at swan and ducks from lakeshore.

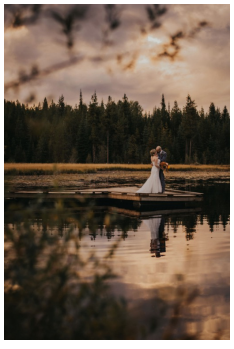

Photo of 2 adults embracing on a dock after just being married.

3

3

Workshop Learning Outcomes

As a result of taking part in this professional development activity, participants will be able to:

- Explain in their own words what a learning outcome is (and isn't) and ways in which they are useful at the course, program, and institutional levels.
- Describe differences between program learning outcomes (PLOs) and (CLOs) but also highlight how they should be connected.
- Engage in the development of individual CLOs through the process of constructive alignment, and thinking about how learning can be categorized (i.e. options for learning taxonomies), demonstrated, and assessed.
- Evaluate the strengths and weaknesses of CLOs, especially in the context of their own disciplines and academic programs.

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Let's start with some definitions…

- **Mission:** Visionary statement of program purpose
- **Goals:** General targets that encompass more than learning
- **Standards:** External metrics (Ministry, accrediting body)
- **Objectives:** Learning goals associated with specific topics or activities that support achievement of LOs
- **Attributes:** Descriptions of traits (graduates)
- **Competencies:** Ability to apply knowledge and skills
- **Outcomes:** Demonstratable & measurable knowledge, competencies, values

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From the OBJECTIVE….to the OUTCOME

Image: Woman pulling back on bow to shoot an arrow to standing target in green field.

Source: https://kdvr.com/reviews/br/sports-fitness-br/recreational-sports-br/best-archery-target/

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Taking Aim…Objectives to Outcomes

The **objectives** of College Writing I are to:

- Train you how to read a text carefully, critically, and repeatedly, to weigh an author's ideas, and to relate different texts to one another.
- Expose you to the interactive nature of the university classroom environment through classroom discussions.
- Hone your abilities as a writer of university-level academic papers.

At the **end of this course** you will be able to:

- Infuse your writing with stylistic features that reflect your "voice," including personal and cultural values.
- Employ written rhetoric as a means to advocate for change.
- Articulate how American Indian peoples have used oral and written discourse as advocacy.

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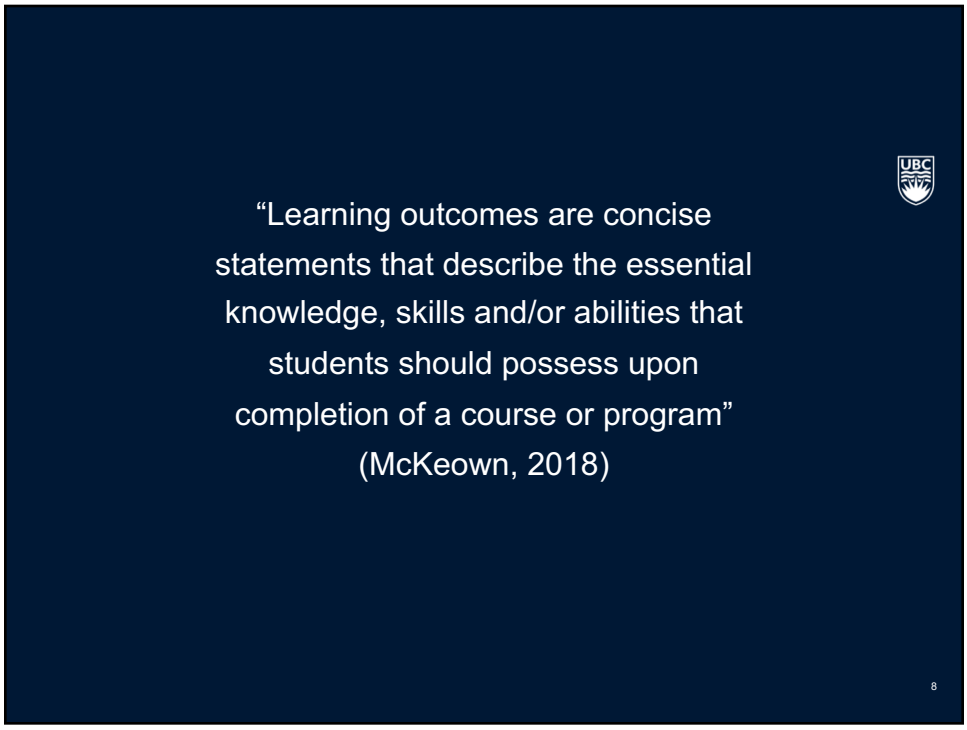
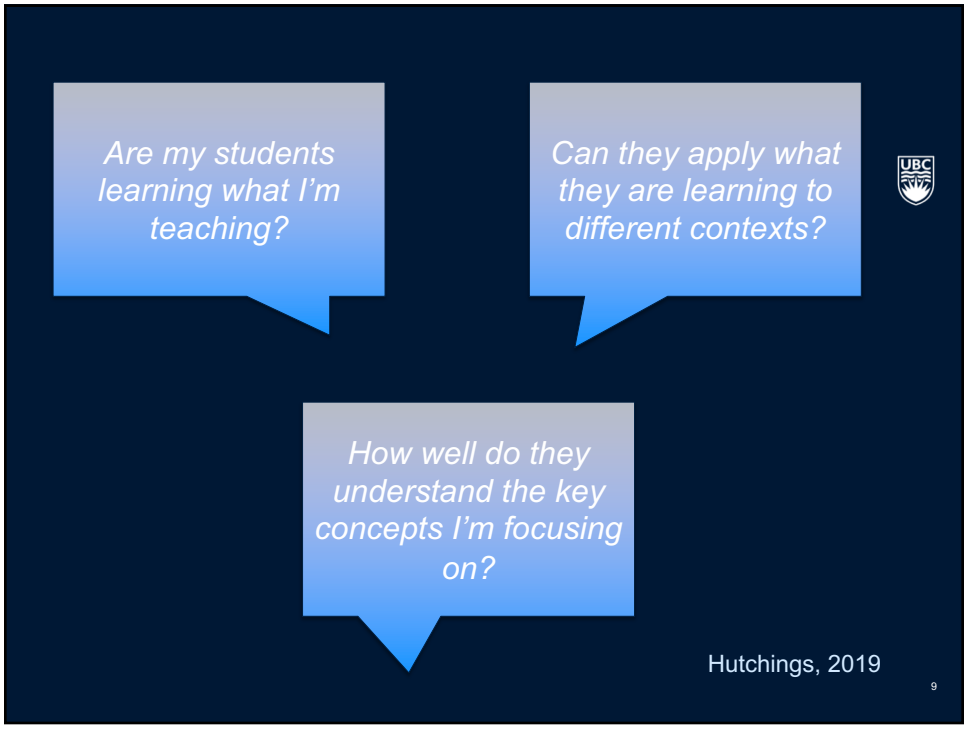

"Learning outcomes are concise statements that describe the essential knowledge, skills and/or abilities that students should possess upon completion of a course or program"
(McKeown, 2018)
8

8


Are my students learning what I'm teaching?
Can they apply what they are learning to different contexts?
How well do they understand the key concepts I'm focusing on?
Hutchings, 2019
9

9

Hunches about your students' learning

Have some evidence…

- Oral presentation skills: self-evaluation, peer evaluation
- Problem-solving skills: homework problem set solutions and corrections with ThinkAlouds
- Integration of ideas: reference multiple types of sources; co-created rubric

Not sure…

- Apply knowledge to troubleshoot problems: MCQ exams
- Communicate concepts to various audiences: essays evaluated by instructor
- Interpret data in context: data analysis using textbook

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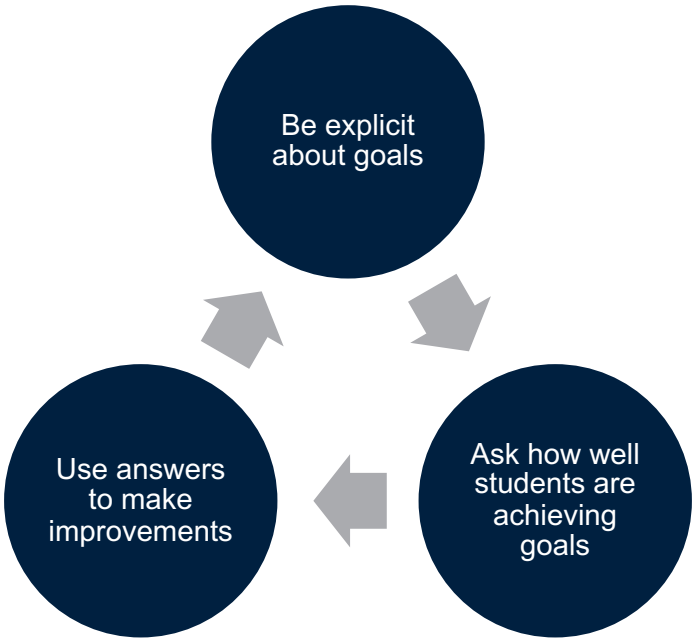

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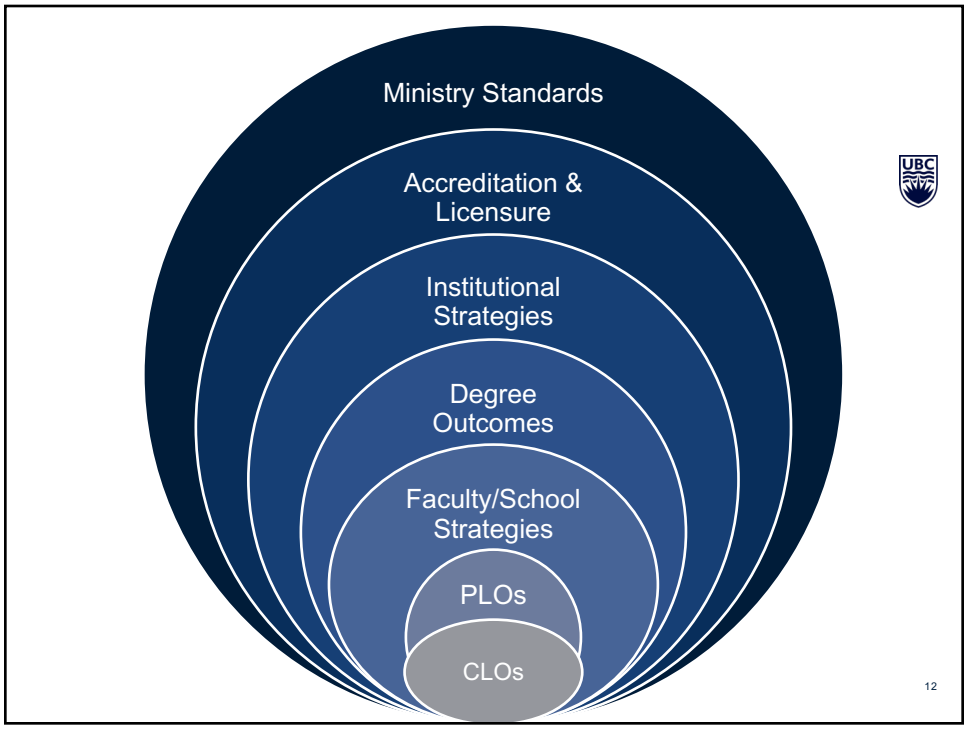

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What purposes do CLOs serve?

For Institution, Partners, Programs:

- Avenue for curriculum mapping of course to program
- Offer clarity in transfer credits
- Transparency in course for prospective students, industry partners

For Learners:

- Provide specifics about what they will learn & be able to do
- Connect learning from other courses
- Provide concrete tool for self-reflection & self-assessment

For Instructors:

- Provide consistency across sections and instructors
- Align individual course content, activities, and assessments
- Involve students in co-constructing what to emphasize in course

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Comparing PLOs and CLOs

After participating in the Intercultural Development **Program**, participants will:

- Demonstrate an understanding of the diverse and contextual nature of culture through their empathetic listening and critical thinking.

After participating in the Exploring Cultural Bias **Workshop,** participants will be able to:

- Counter stereotypic thinking using techniques like, perspective-taking, individuating, and stereotype replacement.

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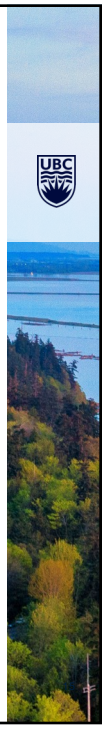
How do we go about developing CLOs?

- **Preparation Phase:**
  - Identify existing PLOs, standards, strategic priorities, etc.
  - Gather syllabi and assignment handouts
  - Elicit input from diverse voices
  - Invite colleague to collaborate
- **Development Phase (including Constructive Alignment):**
  - Create an inventory of all assessments (Curriculum MAP)
  - Identify expected learning/deliverables associated w/ assessments
  - Determine degree of alignment & scope
  - Brainstorm any additional learning & assessments
  - Determine how course activities align
  - Choose a taxonomy of learning
  - Use tips to draft CLOs
- **Implementation Phase**
  - Consider course organization & student progression w/ CLOs
  - Use recursive process to get feedback and revise
  - Align CLOs with PLOs (Curriculum MAP) prerequisite courses



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The criteria that characterize a measurable LOs are similar to the operational definitions researchers create to design experiments and address research questions (Stanny, 2016).

16

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Image: Two flower pots; one with health flower and other one looking dead. Independent variable: amount of direct sunlight a plant receives; Dependent variable: plant health. Source: https://examples.yourdictionary.com/

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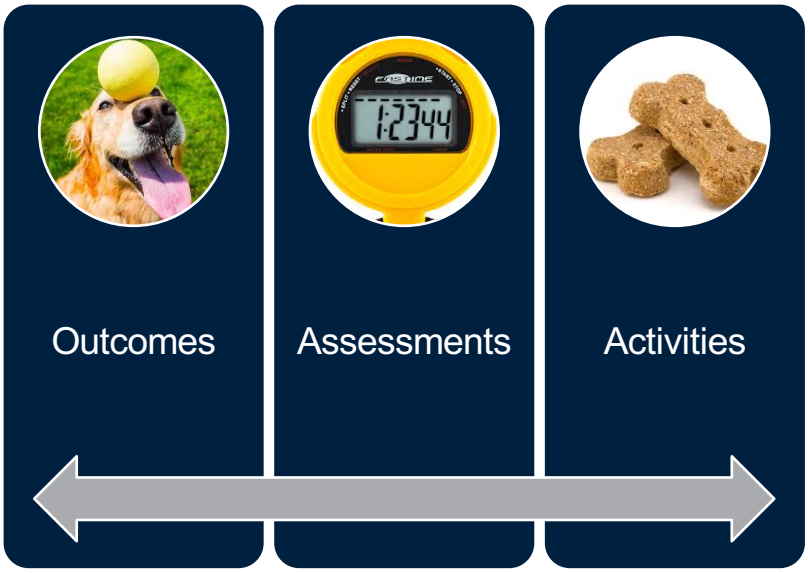
Measuring Outcomes



Images: dog balancing ball on head-successdogs.com; stopwatch-astopwatch.com; bone-shaped dog biscuits-istockphoto.com

18

What frameworks of learning can we use?

Hierarchical:

- **Bloom's** (1956) Taxonomy of Learning: 6 orders of thinking; (Anderson & Krathwohl, 2001)
- **SOLO** (Structure of Observed Learning Outcomes) Taxonomy (Biggs & Collis, 1982): 5 levels of understanding
- The New Taxonomy of Educational Objectives (**Marzano & Kendall**, 2007): 6 levels of difficulty
- Webb's (1997) **Depth of Knowledge** (DoK) Framework: 4 levels

Non-Hierarchical:

- **ICE** (Ideas, Connections, Extensions) Model (Fostaty Young & Wilson, 2000)
- **Significant Learning** Taxonomy (Fink 2003, 2013): 6 degrees of significance
- **Heick's TeachThought Learning** Taxonomy: 6 domains related to degree of complexity
- Understanding by Design (**UbD**) (Wiggins & McTighe, 1998, 2005): 6 facets of understanding
- **Medicine Wheel** for Curriculum Design (LaFever, 2016): 4 directions

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Using Bloom's Taxonomy to write PLOs

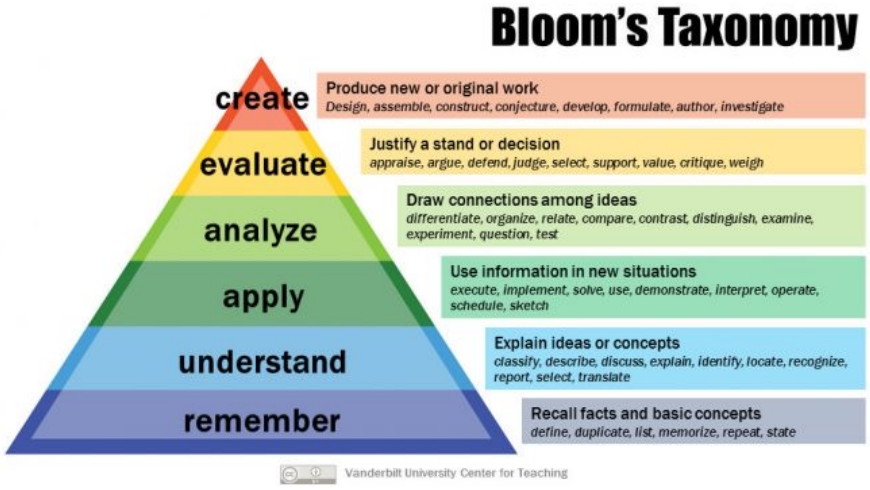

Image: Diagram showing the Bloom's Taxonomy for the cognitive domain arranged as a pyramid from lower-order thinking skills to higher-order thinking skills with corresponding descriptions and verb lists to the right.
Source: https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/

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Using 6 Facets of Understanding to write PLOs

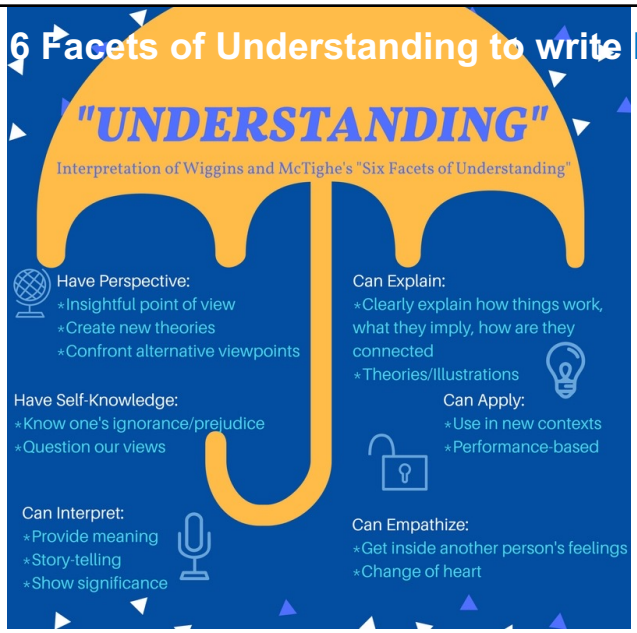

Image: Illustration of large umbrella labeled "understanding" and Wiggins & McTighe's 6 facets with explanatory phrases listed under it like rain drops.
Source: https://professorvlad-ortiz.org/lessons-from-the-six-facets-of-understanding-and-backward-design-process/

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Using Fink's Taxonomy to write PLOs

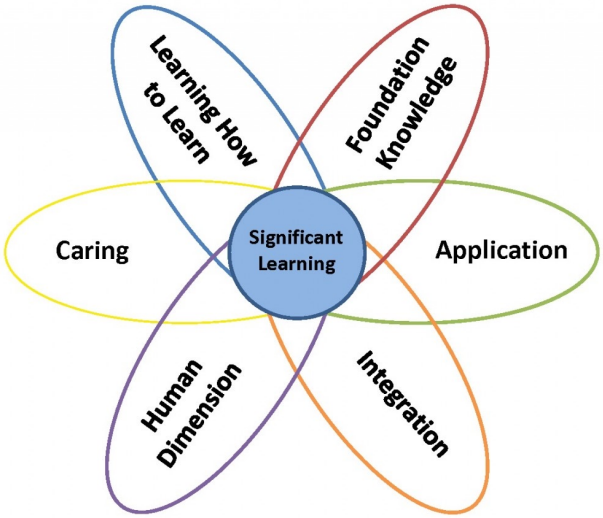

Image: Diagram showing the Fink's Taxonomy of Significant Learning in the form of 6 interconnected ovals forming the shape of a flower with a circle at the center identifying "significant learning" taking place at the intersections.

Source: https://www.vaniercollege.qc.ca/pdo/2013/02/teaching-tip-the-fink-think/

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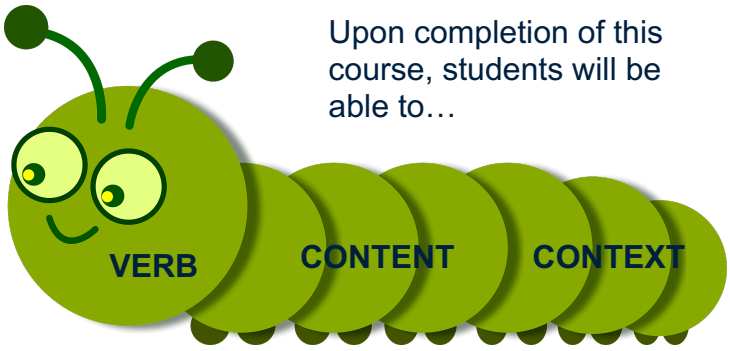
Anatomy of a Learning Outcome



Upon completion of this course, students will be able to…

…employ both APA and MLA style guides to format written assignments, including in-text citations and the reference page.

Image: A cartoon caterpillar with a large head labeled as "verb," the first 3 sections of the body labeled "content" and the last 3 sections "context." Source: clipart.world

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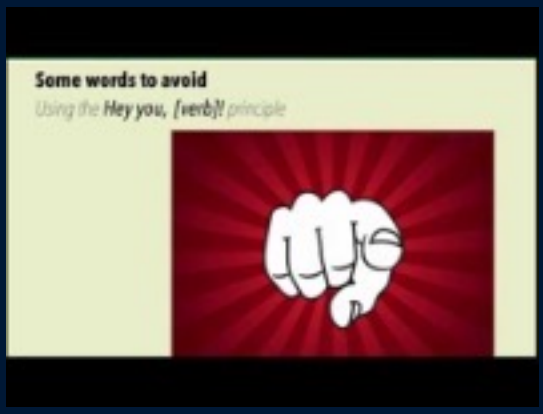
University of Alberta-CTL
Learning Outcomes, Assessment, & Bloom's Taxonomy:
Anatomy of a Learning Outcome (2:26-5:20)
Lower vs Higher Order Skills (6:48-8:14,9:20-9:54)



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What are some tips for writing CLOs?

- Think of the different **contexts** and **ways** in which you would like students to **demonstrate** what they know and can do.
- Reflect on the **PLOs and/or where your course fits** into the expected areas of growth or development (introductory, developing, advanced).
- Develop outcomes that reflect both low and high-order skills or **all domains** in a framework.
- Keep statement **short** and limited to 1 outcome.
- Do not confuse what students will be expected to do (activities, assessments) with what they will be expected to **demonstrate as learning.**
- Aim for **4-6 CLOs.**
- Use a S.S.M.A.R.T.T.T way.

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How to write a S.S.M.A.R.T.T.T CLO?

(Adapted from Doran, 1981 & McKeown, 2018)

Student-centered	Address what will be learned vs what will be taught
Specific	State who, what, where, why something will be accomplished
Measurable	Consider extent to which outcome is assessable, demonstratable
Attainable	Be realistic in what students can achieve in alignment with the program's purpose
Relevant	Choose outcomes that align with needs of students, courses, program, and degree
Time-bound	Include realistic targets for milestones, frequency indicators, and end-goal
Transparent	Use clear and easy-to-understand language for all stakeholders
Transferable	Consider how outcome will apply to other contexts outside the institution

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Evolution of an outcome…

Students will be able to…

Understand different interpretive approaches to the study of religious and literary texts.

↓

Recognize different interpretive approaches for studying religious and literary texts in the Hebrew Bible.

↓

Apply different interpretive approaches in analyzing the religious and literary texts in the Hebrew Bible.

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How S.S.M.A.R.T.T.T. are these CLOS?

After successful completion of this course, students will:

- *Become familiar with plant and animal species in Southern Ontario*
- *Be taught various decision-making models*
- *Critique works of art*
- *Appreciate the ethical responsibilities of social scientists*
- *Identify and describe 15 common plant and animal species found in the Okanagan Wilderness Area through field study and the development of an identification guide*
- *Apply appropriate decision-making models in business and marketing through participation in a collaborative group project*
- *Critique contemporary works of art based on an appropriate set of criteria through studio critiques and an independent essay*
- *Assess the ethical implications of research in the social sciences through in-class discussion and an independent written report*

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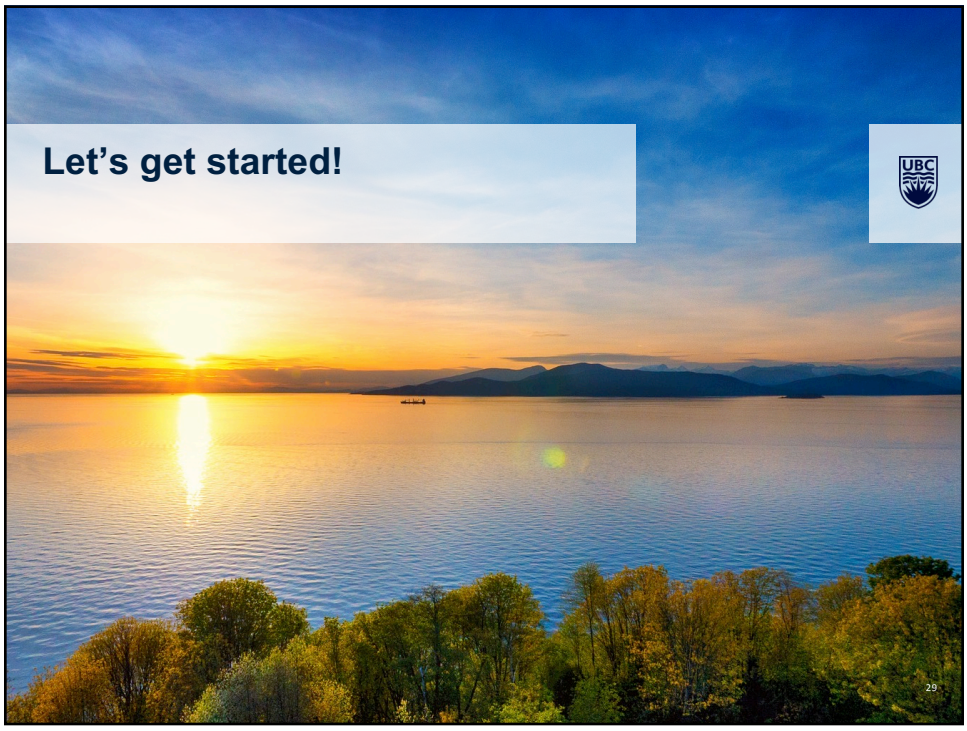

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Are you ready for the Development Phase?

- **Constructive Alignment:**
  - Create an inventory of all assessments (Curriculum MAP).
  - Identify expected learning/deliverables associated with assessments.
  - Determine degree of alignment & scope of learning.
  - Brainstorm any additional learning & assessments.
  - Determine how course activities align.
- **Choose a Taxonomy of Learning**
  - Decide which taxonomy best captures expectations for student development in your discipline.
  - Identify verbs across domains that demonstrate learning.
- **Draft & Refine Outcomes**
  - Capture course niche and instructor's unique expertise.
  - Reflect on what graduates will need to do as professionals.
  - Use tips to draft/revise CLOs.

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Are you writing S.M.A.R.T. outcomes?

By the end of this course (Italian Renaissance Art), students will be able to:

- **S**pecific
  - identify and describe the political, religious, economic, and social uses of art in Italy during the Renaissance
- **M**easurable
  - analyze the art of the period according to objective methods
- **A**ttainable:
  - evaluate and defend their response to a range of art historical issues
- **R**elevant:
  - compare and contrast the role of art and of the artist in Italy during the Renaissance with those in contemporary society
- **T**ime-bound:
  - link different materials and types of art to the attitudes and values of the Renaissance period

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Your Outcomes...

By the end of this course, students will be able to:

- Identify the viruses that cause disease in mammalian, in particular human, based on their molecular structure by preparation of infographic images using peer-reviewed journal articles.
- Analyze the data that you collect in the lab to extract meaningful results that can then be compared to theoretical predictions.
- Compare and contrast foundational theory by demonstrating proficiency through applying tools presented in the course to solve chemical problems from your own specific research area.

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References & Resources

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References & Resources

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