Sustainability
Education

Course
Outcomes &
Learning
Objectives
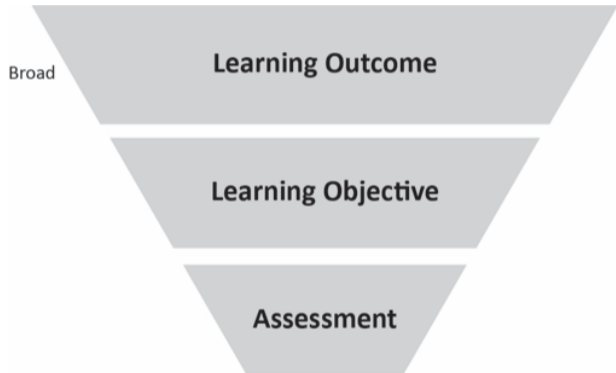
Introduction

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Components

Bloom's
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Thank you!

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Sustainability Education:
Course Outcomes & Learning Objectives

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Department of Anthropology and Environmental & Sustainability Studies

Wasatch Experience

May 18, 2022

Goals:

1. Define what course outcomes and learning objectives are.

2. Explain and apply Bloom's Taxonomy.

3. Design measurable learning objectives.

Broad

Learning Outcome

Learning Objective

Assessment

Outcomes a description of what a student should be able to do at the end of a course.

Outcomes a description of what a student should be able to do at the end of a course.

e.g., *Students will be able to define sustainability and identify major sustainability challenges.*

https://ctle.utah.edu/instructor-education/outcomes_objectives.php
https://stars.aashe.org/resources-support/help-center/academics/learning-outcomes/
https://www.celt.iastate.edu/teaching/preparing-to-teach/tips-on-writing-course-goalslearning-outcomes-and-measureable-learning-objectives/

Outcomes a description of what a student should be able to do at the end of a course.

e.g., *Students will be able to define sustainability and identify major sustainability challenges.*

Objectives explain what students should know or be able to perform or accomplish by the end of a class session.

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Why? For students: helps them understand what they are doing and why.

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Why? For students: helps them understand what they are doing and why.
For instructors: helps you think through what you want students to get out of your course/session.

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Course Outcomes and Learning Objectives

Each course outcome/learning objective should include the following components:

1. Conditions: how, when, where, or with what.

https://ctle.utah.edu/instructor-education/outcomes_objectives.php

Each course outcome/learning objective should include the following components:

1. Conditions: how, when, where, or with what.

2. Performance statement: stated with an action verb.
   (refer to *Bloom's Taxonomy* on next slide)

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Each course outcome/learning objective should include the following components:

1. Conditions: how, when, where, or with what.

2. Performance statement: stated with an action verb.
   (refer to *Bloom's Taxonomy* on next slide)

3. Criterion measure: defines the level of performance and product, process, or outcome.

https://ctle.utah.edu/instructor-education/outcomes_objectives.php

Levels:

- Factual

BLOOM'S TAXONOMY – COGNITIVE DOMAIN (2001)

HIGHER-ORDER THINKING SKILLS

CREATING
Use information to create something new

EVALUATING
Examine information and make judgments

ANALYZING
Take apart the known and identify relationships

APPLYING
Use information in a new (but similar) situation

UNDERSTANDING
Grasp meaning of instructional materials

REMEMBERING
Recall specific facts

LOWER-ORDER THINKING SKILLS

https://ctle.utah.edu/instructor-education/Blooms-Taxonomy.php
https://citt.ufl.edu/resources/the-learning-process/designing-the-learning-experience/blooms-taxonomy/

Levels:

- Factual
- Conceptual

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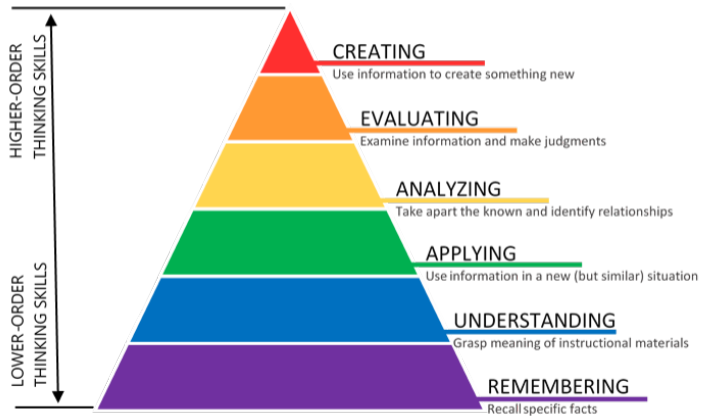
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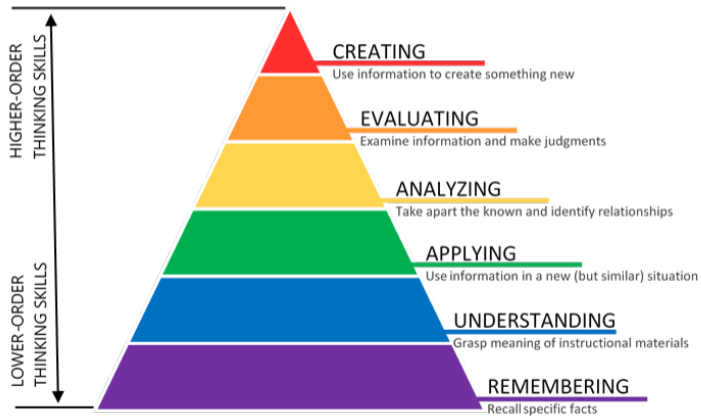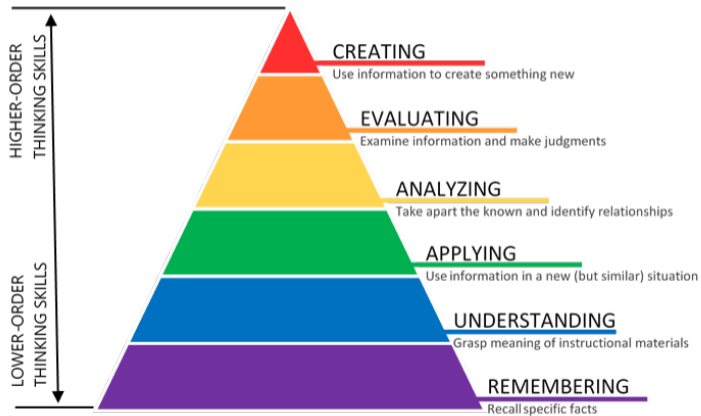https://citt.ufl.edu/resources/the-learning-process/designing-the-learning-experience/blooms-taxonomy/

Levels:

- Factual
- Conceptual
- Procedural
- Metacognative

BLOOM'S TAXONOMY – COGNITIVE DOMAIN (2001)

HIGHER-ORDER THINKING SKILLS

CREATING
Use information to create something new

EVALUATING
Examine information and make judgments

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Each course outcome/learning objective should include the following components:

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   (refer to Bloom's Taxonomy on next slide)

3. Criterion measure: defines the level of performance and product, process, or outcome.

   Courses and class sessions should be planned with a **measurable** learning outcome in mind.

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How can we assess if students successfully achieved our goal?

Outcome: *Students will be able to define sustainability and identify major sustainability challenges.*

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How can we assess if students successfully achieved our goal?

Outcome: *Students will be able to define sustainability and identify major sustainability challenges.*

- Students will understand sustainability.

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How can we assess if students successfully achieved our goal?

Outcome: *Students will be able to define sustainability and identify major sustainability challenges.*

- After this class session, students will be able to enumerate sustainability challenges.

How can we assess if students successfully achieved our goal?

Outcome: *Students will be able to define sustainability and identify major sustainability challenges.*

- When given a proposal for a new urban agriculture initiative, students will be able to point out where the plan fails and succeeds to meet sustainability goals.
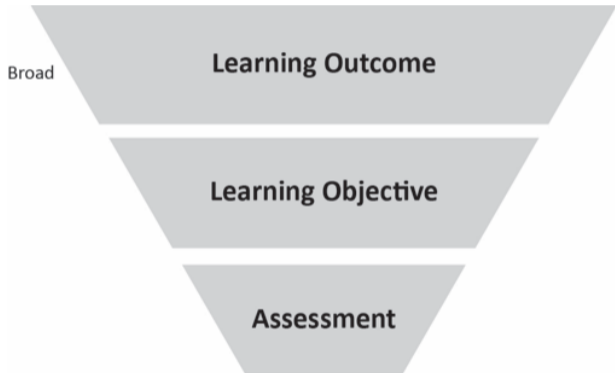
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Gather into your groups.

1 Discuss the following sustainability outcome from the Association for the Advancement of Sustainability in Higher Education (AASHE):

Students will be able to apply concepts of sustainable development to address sustainability challenges in a global context.

2 Draft a corresponding learning objective for one of your courses within the correct "level" of Bloom's Taxonomy.

3 Propose a measurable criteria that you could use to assess the objective.

https://stars.aashe.org/resources-support/help-center/academics/learning-outcomes/

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University of Utah CTLE: Writing Pedagogically Sound Course Outcomes and Learning Objectives.
https://ctle.utah.edu/instructor-education/outcomes_objectives.php.

Iowa State Center for Excellence in Learning and Teaching: Writing Course Goals/Learning Outcomes and Learning Objectives. www.celt.iastate.edu/teaching/preparing-to-teach/tips-on-writing-course-goalslearning-outcomes-and-measureable-learning-objectives/.

AASHE: The Sustainability Tracking, Assessment & Rating System.
https://stars.aashe.org/resources-support/help-center/academics/learning-outcomes/.

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice*, 41(4), 212-218. DOI: 10.1207/s15430421tip4104_2.