Using learning outcomes to create clear assignments

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Land acknowledgement

Oregon State University in Corvallis, Oregon, is located within the traditional homelands of the Mary's River or Ampinefu Band of Kalapuya.

Following the Willamette Valley Treaty of 1855, Kalapuya people were forcibly removed to reservations in Western Oregon.

Today, living descendants of these people are a part of the Confederated Tribes of Grand Ronde Community of Oregon (grandronde.org) and the Confederated Tribes of the Siletz Indians (ctsi.nsn.us).

What are Student Learning Outcomes and how do they fit into a course?

SLOs are statements that answer the question:

What should students know, understand and be able to do in the course?

During a course they need opportunities to **develop** their knowledge, understanding, and abilities.

By the end of a course, they should be able to **demonstrate** their knowledge, understanding, and abilities.

Informal assignments let them **develop**:
- Factual knowledge (what they know)
- Conceptual knowledge (what they understand)
- Procedural knowledge (what they are able to do)
- Self knowledge (what they do as self-directed, reflective learners)

Formal assignments let them **demonstrate**:
- Factual knowledge (what they know)
- Conceptual knowledge (what they understand)
- Procedural knowledge (what they are able to do)

What are the WIC learning outcomes?

1. Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.

2. Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.

3. Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft.

(https://wic.oregonstate.edu/wic-learning-outcomes)

WIC learning outcome #3

Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including:

- brainstorming,

- drafting,

- using sources appropriately, and

- revising comprehensively after receiving feedback on a draft.

For now, I want to break this into two categories:

- Writing process (brainstorming, drafting, and revising)

- Source use

We will address source use as part of LO #2 (knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline).

Breaking down WIC learning outcome #3 (writing process aspects)

To meet this LO…	Students need to have…	Specifically…
compose a document of at least 2000 words	Conceptual/procedural knowledge	How to organize a long text in a way that is suitable for the genre and audience (WIC learning outcome #2)
brainstorming, drafting	Conceptual/procedural knowledge	How to use brainstorming or other invention techniques to generate ideas
	Self knowledge	How to draw on past experiences with invention to generate ideas
revising comprehensively after receiving feedback	Conceptual knowledge	What counts as comprehensive revision (i.e. it is more than editing)
	Procedural knowledge	How to interpret feedback and apply it in making changes to their draft How to prioritize types of feedback (e.g. what requires more time, what to address first, etc.)
	Self knowledge	How to regulate one's feelings about and reactions to feedback

Exercise 1: Make notes about WIC learning outcome 3

Make notes about how you do/could help students learn:

1. How to organize a long text in a way that is suitable for the genre and audience

2. How to use brainstorming or other invention techniques to generate ideas

3. How to draw on past experiences with invention to generate ideas

4. What counts as comprehensive revision (i.e. it is more than editing)

5. How to interpret feedback and apply it in making changes to their draft

6. How to prioritize types of feedback (e.g. what requires more time, what to address first, etc.)

7. How to regulate one's feelings about and reactions to feedback

Specifically:

- How do/could you share the relevant conceptual knowledge?

- How do/could you give students opportunities to practice the procedural knowledge (i.e. practice doing these things)?

WIC learning outcome #2 (plus source use from LO #3)

Demonstrate knowledge/understanding of

- audience expectations,

- genres,

- conventions

- source use

appropriate to communicating in the discipline.

Breaking down WIC learning outcome #2 (plus source use from LO #3)

To meet this LO...	Students need to have...	Specifically...
Genres	Factual knowledge	What the common genres are in this discipline
Audience expectations	Factual/conceptual knowledge	Who reads each of the common genres For what purposes each audience reads each genre
	Procedural knowledge	How to adapt one's writing to the different needs of each genre & its audience(s)
Conventions	Conceptual/procedural knowledge	How to identify rhetorically salient features for writing in a given genre for given audience(s) **Note:** For help identifying these yourself, please email me for a 1:1 conversation.
Source use	Conceptual knowledge	What kinds of sources are suitable for the genre and audience
	Conceptual/procedural knowledge	How to evaluate sources for quality and suitability How to select ideas and information from sources How to integrate ideas and information from sources into one's writing How to give credit to source (attributions, citations, and works cited)

Exercise 2: Make notes about WIC learning outcome 2

Make notes about how you do/could help students learn:

1. What the common genres are in this discipline

    Note: If students go into more than one career after graduation, write down genres for each career.

2. Who reads each of the common genres

3. For what purposes each audience reads each genre

4. How to adapt one's writing to the different needs of each genre & its audience(s)

5. How to identify rhetorically salient features for writing in a given genre for a given audience(s)

6. How to use sources, including:

    *   What kinds of sources are suitable for the genre and audience
    *   How to evaluate sources for quality and suitability
    *   How to select ideas and information from sources
    *   How to integrate ideas and information from sources into one's writing
    *   How to give credit to source (attributions, citations, and works cited)

Specifically:

*   How do/could you share the relevant conceptual knowledge?

*   How do/could you give students opportunities to practice the procedural knowledge (i.e. practice doing these things)?

WIC learning outcome #1

Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.

This includes two parts:

- Content knowledge in the discipline

- Critical thinking in the discipline

Breaking down WIC learning outcome #1

To meet this LO…	Students need to have…	Specifically…
Content knowledge	Factual knowledge Conceptual/procedural knowledge Self knowledge	(We will address these next as part of the Class Learning Outcomes)
Critical thinking	Conceptual knowledge	What kinds of critical thinking people do in this discipline What criteria are relevant in thinking critically in this discipline
	Conceptual/procedural knowledge	How to know when critique/critical thinking is appropriate How to apply critical thinking criteria in different situations
	Self knowledge	How to recognize one's own biases related to the topic How to manage one's own biases related to the topic

Exercise 3: Make notes and talk in breakouts about WIC learning outcome 1

Make notes about how you do/could help students learn:

1. What kinds of critical thinking people do in this discipline

2. What criteria are relevant in thinking critically in this discipline

3. How to know when critique/critical thinking is appropriate

4. How to apply critical thinking criteria in different situations

5. How to recognize one's own biases related to the topic

6. How to manage one's own biases related to the topic

Specifically:

- How do/could you share the relevant conceptual knowledge?

- How do/could you give students opportunities to practice the procedural knowledge (i.e. practice doing these things)?

Course Learning Outcomes

SLOs are statements that answer the question:

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- Self knowledge

Formal assignments let them **demonstrate**:
- Factual knowledge (what they know)
- Conceptual knowledge (what they understand)
- Procedural knowledge (what they are able to do)

An example of course learning outcomes (OC 444: Polar Oceanography)

Successful completion of this course will enable you to:

1. Describe the (a) physical, (b) chemical and (c) biological processes of the Arctic and Antarctic oceans, providing examples that demonstrate the interactions between these processes.

2. Discuss, with examples, the impacts of direct anthropogenic activities and climate change on the polar oceans both to the environment and the people that inhabit it.

3. Evaluate and synthesize relevant literature to construct and defend logical arguments.
4. Analyze real polar data and interpret results by applying concepts learned during lectures and through additional reading.

5. Produce a high-quality NSF GRFP-style research proposal.

6. Summarize scientific information into a format that is easily accessible to the public.

7. Present scientific information in front of an audience.

Exercise 4: Breaking down the course learning outcomes

To meet this CLO…	Students need to have…	Specifically…
Describe the (a) physical, (b) chemical and (c) biological processes of the Arctic and Antarctic oceans, providing examples that demonstrate the interactions between these processes.	Factual knowledge	The physical, chemical and biological processes of the Arctic and Antarctic oceans
	Conceptual knowledge	How these processes interact
Discuss, with examples, the impacts of direct anthropogenic activities and climate change on the polar oceans both to the environment and the people that inhabit it.	**Exercise 4: Continue in the google document for your breakout room**	
Evaluate and synthesize relevant literature to construct and defend logical arguments.		
Analyze real polar data and interpret results by applying concepts learned during lectures and through additional reading.		
Produce a high-quality NSF GRFP-style research proposal		
Summarize scientific information into a format that is easily accessible to the public.		
Present scientific information in front of an audience.		

Exercise 5: Break down your own course learning outcomes

Feel free to use the blank graphic organizer from Google Drive.

I am also attaching it as a Word document in the chat.

Exercise #6: Connect WIC and course learning outcomes

OC 444: Polar Oceanography, class learning outcome #3:

Discuss, with examples, the impacts of direct anthropogenic activities and climate change on the polar oceans both to the environment and the people that inhabit it.

Students need …	Specifically…	How students will demonstrate it (formal writing) What students produce	How students will develop it (informal writing) How you make sure they are able to produce it
		Fill in each row in this column with criteria for evaluating how students demonstrate this in formal, graded assignments	For each criterion, identify the class lessons, informal exercises, & assignment that will help students develop the knowledge or ability being evaluated
Factual knowledge	What the impacts of anthropogenic activities are What the impacts of climate change are	e.g. • Final paper describes impacts of anthropogenic activities • Final paper describes information about the impacts of climate change	e.g. • Information is covered in class lecture and readings • Students will describe impacts in their own words during a short in-class exercise
Conceptual knowledge	How to describe anthropogenic activities	• Include quantitative measures—give in terms of a standard measurement • Include relative measures (more/less than something else)	e.g. • An example will be given in class • Define audience and its knowledge in class

A final note

The exercises in this workshop are not easy or quick.

Today's workshop was meant to introduce you to a process for breaking down and then connection WIC and course learning outcomes.

I encourage you to go back through the exercises in order to

1) Keep deepening your understanding of how they connect

2) Continue improving how you explain them to students

I am available and very happy to help with any aspect of this process in 1:1 or small group conversations.

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