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A Framework for Higher Education Course Design

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Tallinn & Lausanne, October-December 2025

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Today



- Debrief on T&L, concept maps and feedback
- From concept map to content
- Contextual elements
- Intended learning outcomes (ILOs)
- Assignment and next time

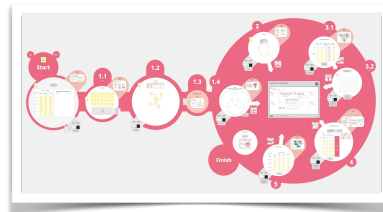
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Housekeeping



- Digital signature of participants
- Have your own MIRO board open (e.g., board 21)
- Have the general MIRO board open (<https://go.epfl.ch/coursedesign>)



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Key learnings on T&L philosophy and concept maps

Please complete the following tasks:

- Reflect individually on the drafting of your T&L philosophy statement and write one key learning
- Reflect individually on the creation of your course's concept map and write one key learning



<https://go.epfl.ch/coursedesign>

5 minutes

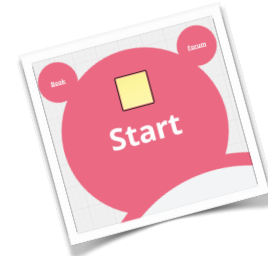
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Forum for questions

Course design-related questions	
Questions	Answers
How does the ADDIE framework fit in your course design approach?	Both approaches are concerned with course design. We put more emphasis on the alignment of the different elements (context, ILOs, content, T&L strategy and assessment strategy)
There's an old saying "education is what remains when you have forgotten what you learned for the exams". How would you comment that? Specifically, are there some un-intended learning outcomes alongside intended learning outcomes? If yes (to some extent), wouldn't this mean that driving course design only with ILOs is in a sense short-sighted?	Thanks for the question! There is a vast literature on "hidden curriculum" going back to Jackson (Life in the classroom) and more recently Margolis (The hidden curriculum in higher education). I put "hidden" in inverted commas as it is not always that hidden (in our framework, it could be included in the context under institutional rules). Un-intended can also both be negative (e.g., at EPFL, the architecture department's DNA creates a lot of unwell-being among students) and positive. One can indeed make a distinction between ILOs (what I plan) and enacted curriculum (what I actually do) and experienced curriculum (what the students experience). In my view, teachers have a lot of leverage on ILOs and enacted curriculum and much less on experienced. I would therefore not see the work on ILOs as short-sighted but more as a (hopefully solid) foundation that needs to be then enacted. It is also a humble reminder that teachers are only part of the "learning equation"



Session #02 From concepts to learning outcomes

Session #02 learning outcomes



- List the key **contextual elements** of a course
- Formulate **intended learning outcomes** (ILOs) for a course
- Assess the quality of intended learning outcomes for a course

Design
From concept to
content



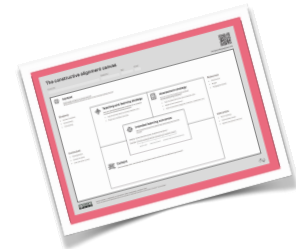


From concept to content

In your own MIRO board:

1. Place the different concepts into the content diagram (1.4)
 - Aim for having at least 4 elements
 - Whenever possible, place the post-its into "knowledge", "skills" or "attitudes" or at their intersection
2. Duplicate the post-its and move the content elements to the content bloc in the central canvas

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5 minutes

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Design Context



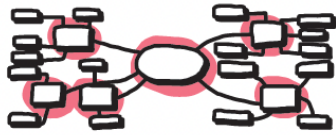
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Designing your course in 6 steps



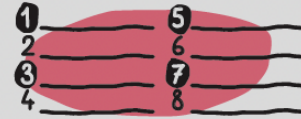
Contextual



1. Identification of key concepts



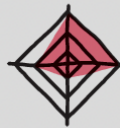
2. Identification of contextual elements



3.1. Definition of intended learning outcomes

cont. obj.	C1	C2	C3
01	X		X
02		X	

3.2. Content-outcomes alignment



4. Choice of teaching & learning strategy



5. Choice of assessment strategy



Contextual elements

In your experience, what are the most important contextual elements of a course?

5 minutes

Key contextual elements that influence a course



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Students

How many students are there?
How familiar are the students with the teaching approaches I intend to use?
What knowledge, skills, and attitudes do the students already have?
How diverse is my group of students?
...

Curriculum

What is the planned teaching format (lectures, practical work, seminars, etc.)?
How many credits are allocated to this course?
How does this course fit in with others in the curriculum?
What is the level of this course (Bachelor's, Master's, continuing education, etc.)?
Does this course have a limit to the number of students that can pass?
Are the ILOs already set?
What are the institutional rules and practices?
Is this a compulsory or optional course?
...

Resources

What is the teaching space like (classroom furniture and size)?
What materials do I have available?
What teaching resources can I access for this course?
What financial resources are available?
...

Instructors

Are other instructors or assistants involved in this course?
What feedback (from students, colleagues, exam results) is available about this course?
What level of responsibility do I have for this course?
How much time do I have available to develop this course?
How comfortable am I with the subject and/or with certain teaching approaches?
What are my specific intentions for this course?
...

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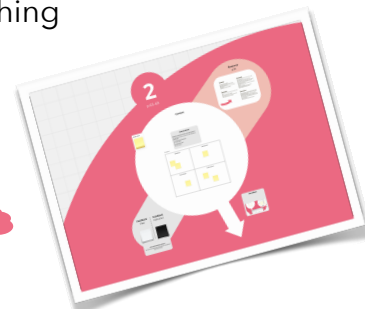


Contextual elements of your course

1. Identify the elements that might affect your teaching approaches pertaining to :

- Students
- Curriculum
- Resources
- Instructor(s)

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2. In your own MIRO board (2), write down these elements on post-it notes

3. Duplicate the post-its and move them to the central canvas

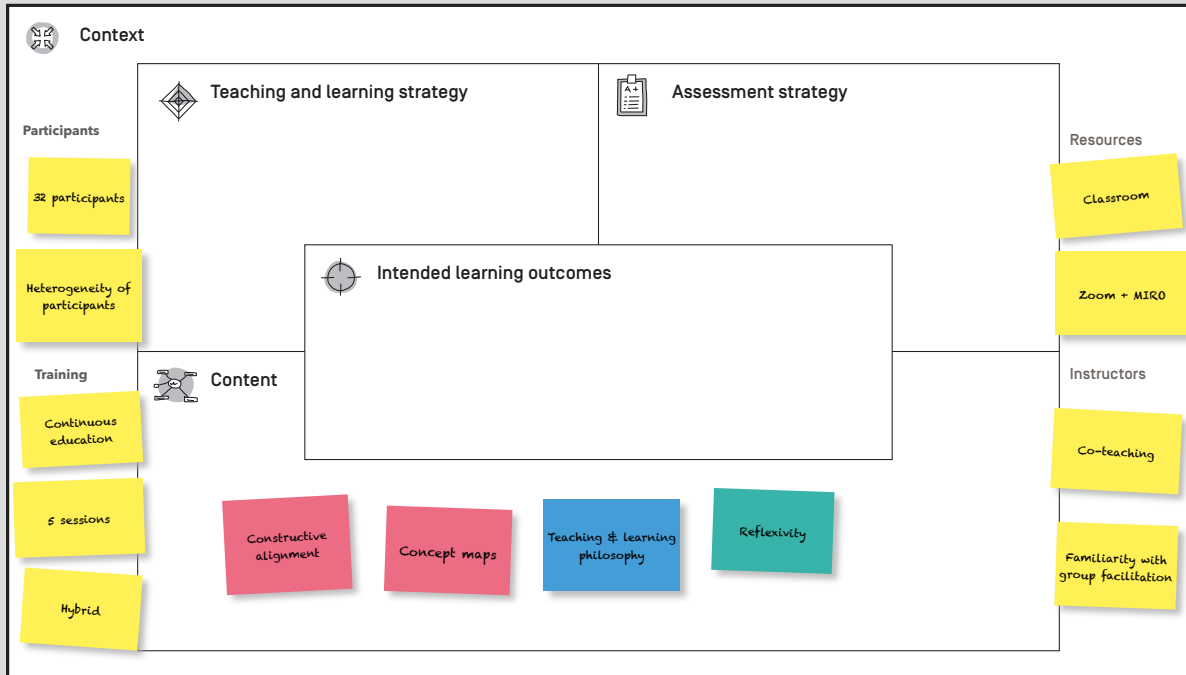
5 minutes

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The constructive alignment canvas

Course title: A Framework for Higher Education Course Design
 Designed by: ML
 Date: 10-12-2025
 Version: 1.0

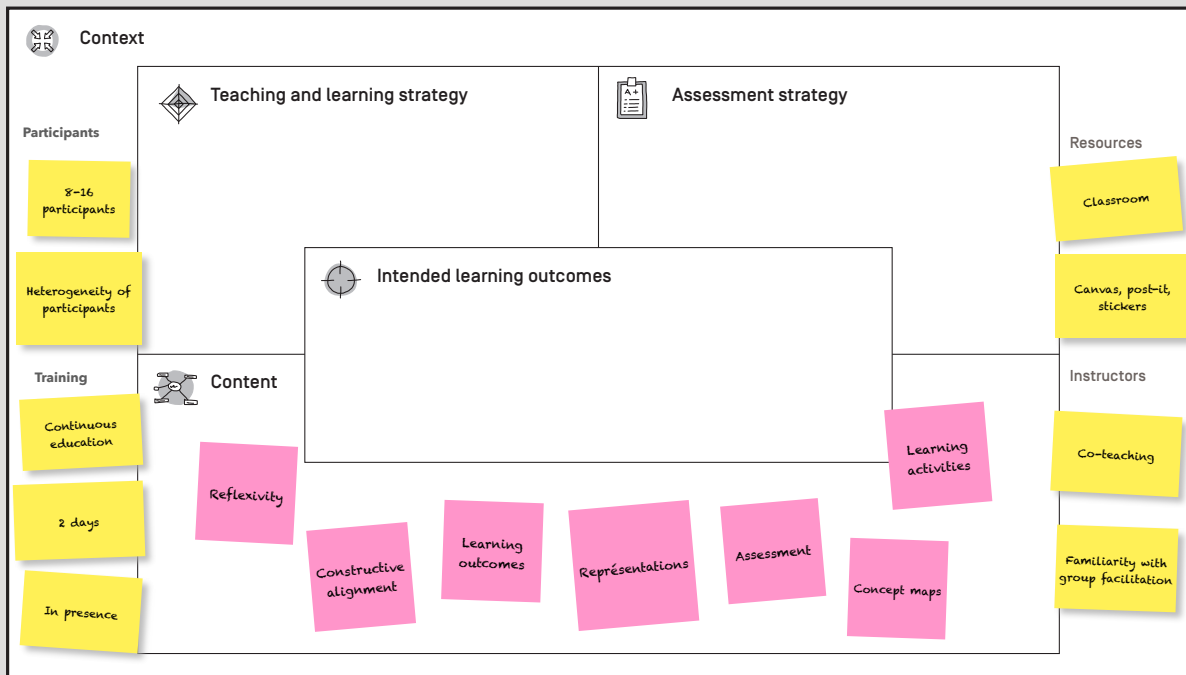


Source: Lanarès, J., Laperrouza, M., et Sylvestre E. (2024). Course design. Lausanne: PPUF. The list of questions and associated items is not exhaustive. Additional information can be found in the book "Course design".

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The constructive alignment canvas

Course title: Reflecting on university teaching
 Designed by: ML/MA
 Date: 20.06.2024
 Version: 1.0



Source: Lanarès, J., Laperrouza, M., et Sylvestre E. (2024). Course design. Lausanne: PPUF. The list of questions and associated items is not exhaustive. Additional information can be found in the book "Course design".

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Mini-break

5 minutes



Q&A on contextual elements



Design

Intended learning outcomes

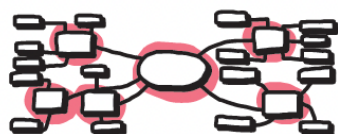


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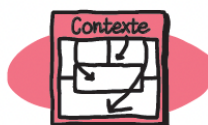
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Designing your course in 6 steps

Contextual



1. Identification of key concepts



2. Identification of contextual elements



3.1. Definition of intended learning outcomes

cont. obj.	C1	C2	C3
01	X		X
02		X	

3.2. Content-outcomes alignment



4. Choice of teaching & learning strategy



5. Choice of assessment strategy

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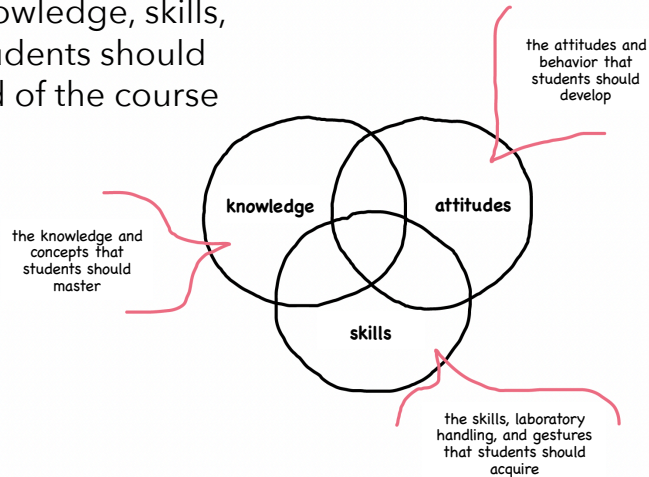
The importance of learning outcomes



Pinpoint the learning (knowledge, skills, and attitudes) that the students should have acquired by the end of the course

They help :

- Construct
- Communicate
- Assess



Learning outcomes vs. teaching objectives



Teaching objectives or intentions	Learning outcomes
What the instructor envisages for content and course delivery, what they intend to do during the course.	What the students should be able to do with the content, once the learning experience is completed (course, semester, year, etc.).
<ul style="list-style-type: none"> - Introduce students to ethical thinking on research - ... 	<ul style="list-style-type: none"> - Apply ethical standards to one's work - ... - ...



Learning outcome or not?

5 minutes

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Learning outcome or not?

This introduction will put the project, methods and analytical aims of discipline X into perspective.

Particular emphasis will be placed on the discipline's scientific approach, which consists in building objective, universal knowledge from the diversities observed in the field. In so doing, the course will show how discipline X constitutes a cross-disciplinary enterprise in the translation of cultures.

The course content will be accompanied by as many empirical examples and contemporary issues as possible.

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Learning outcome or not?

This course is an introduction to **XY** through the lens of **Z**

This course aims to present the concepts and methods of the major theories of the 20th century and their implications for the teaching of **XXX**

The course will focus on the theme of **artichokes** from Antiquity to the 19th century



Learning outcome or not?

Review the milestones in the development of **XYZ**

Understand the fundamental characteristics of the **XYZ** system under consideration

Be aware of the plurality of viewpoints on **XYZ**



Learning outcome or not?

Deepen the knowledge of thinkers in the field

Identify, through comparative work, the convergences and divergences between the ideas of these different authors (be able to group them into "families of thought")

Trace the genesis of key theoretical concepts in the comparative history of religions

Formulate a learning outcome

Formulate a learning outcome for the course book at university level

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Different learning levels



Surface learning

- Students are only expected to **remember** the concepts.



- Students should be able to **make connections** between various concepts.



Deep learning

- Students should be able to **make connections** between various concepts and **their prior knowledge**.

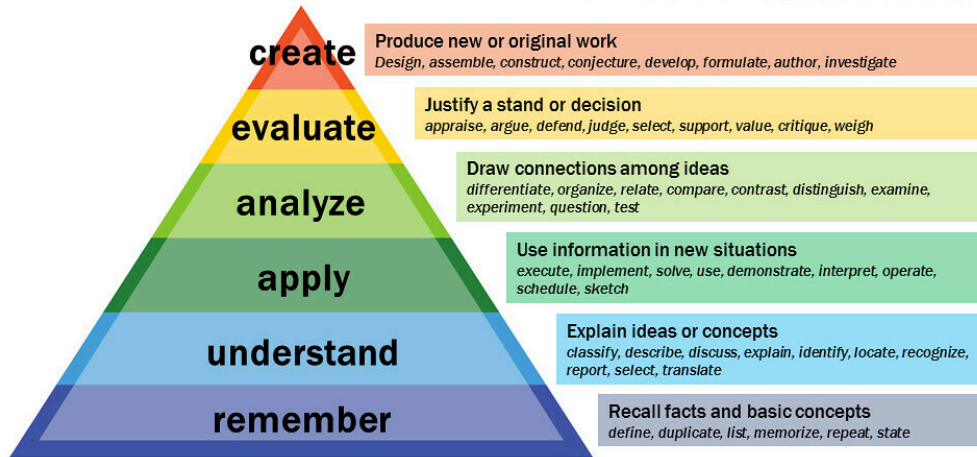


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Bloom's Taxonomy



Source: Bloom's Revised Taxonomy, cft.vanderbilt.edu, Vanderbilt University Center for Teaching.

Formulating intended learning outcomes



An **action verb** that defines the level and type of intended learning

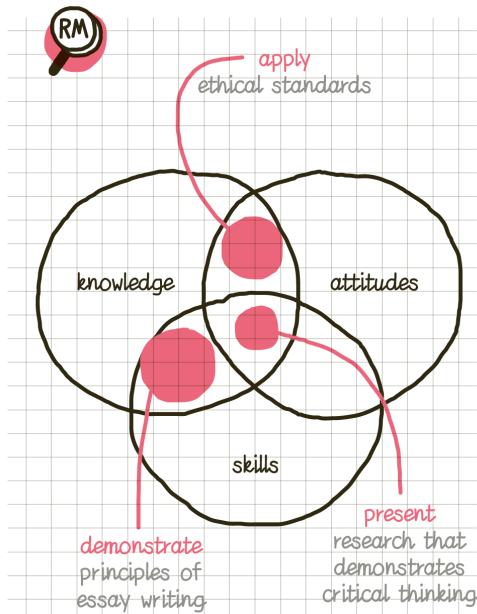
The **learning content**

Any additional information about the **conditions within which** the student must complete the task

At the end of my course, the students will be able to...

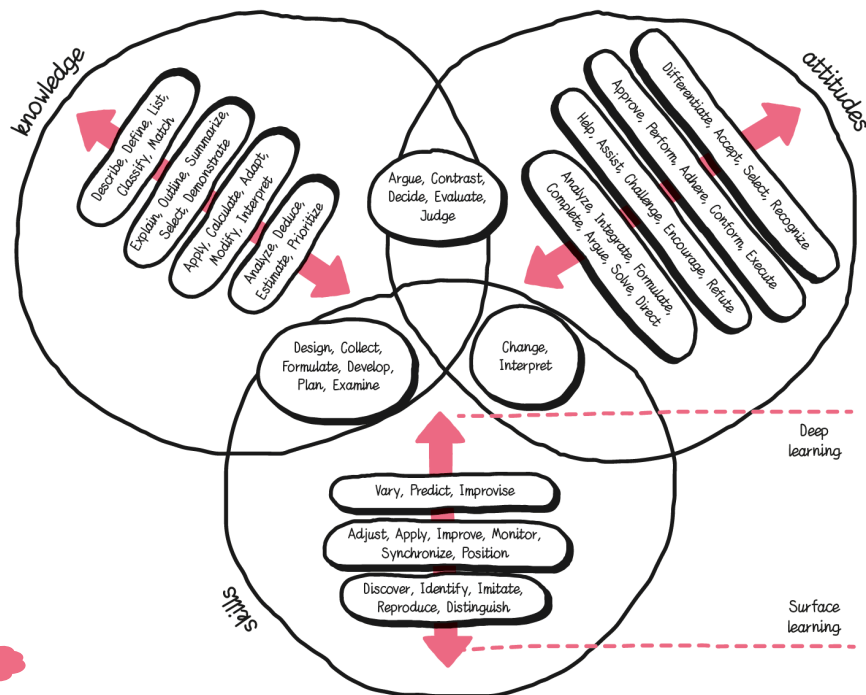
Critically assess the ethical implications of a research project
Apply a reflexive process to analyze and improve a course

1. Define the type and level of understanding



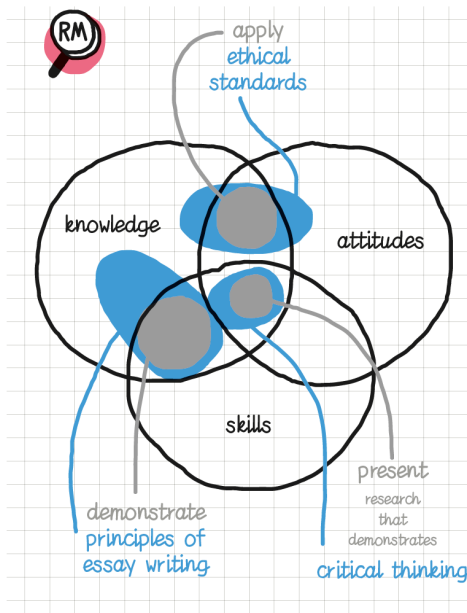
An **action verb** that defines the **type** and **level** of intended learning

1. Define the type and level of understanding



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2. Identify the ILOs that students should achieve



The **learning content**

3. Specify the situation in which students demonstrate their learning



Any additional information about the **conditions within which** the student must complete the task

Proof that the learning outcome has been achieved must be observable in a specific situation

different levels of study.

	2nd year Bachelor's	1st year Master's
	<ul style="list-style-type: none"> Recognize ethical standards in scientific research Describe the principles of essay writing in a scientific article Recognize the ethical implications in research involving living beings 	<ul style="list-style-type: none"> Apply ethical standards to one's work Demonstrate the principles of essay writing in a research report Critically assess the ethical implications of a research project

3. Specify the situation in which students demonstrate their learning




Any additional information about the **conditions within which** the student must complete the task

Proof that the learning outcome has been achieved must be observable in a specific situation

3. Specify the situation in which students demonstrate their learning



Example



2nd year Bachelor's

- Recognize ethical standards in scientific research.
- Describe the principles of essay writing in a scientific article
- Recognize the ethical implications in research involving living beings

3. Specify the situation in which students demonstrate their learning



Example



2nd year Bachelor's

- Recognize ethical standards in scientific research.
- Describe the principles of essay writing in a scientific article
- Recognize the ethical implications in research involving living beings

1st year Master's

- Apply ethical standards to one's work
- Demonstrate the principles of essay writing in a research report
- Critically assess the ethical implications of a research project

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4. Make sure the ILOs are clearly expressed



- **Student-centered:** Make sure the outcomes are focused on student learning. When writing the outcomes, keep this prompt in mind: "At the end of my course, the students will be able to..."
- **Clear:** One idea per learning outcome
- **Aligned with content:** Obvious connection with course content
- **Observable:** The students must be able to prove they have achieved the outcome
- **Situation-based:** The situation is clearly specified

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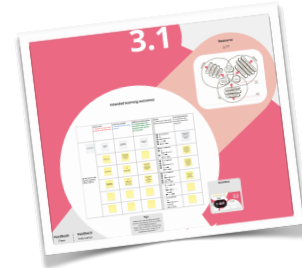
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Formulating the intended learning outcomes of your course

Fill the table (2-3 outcomes):

- Identify the **learning outcomes** that must be achieved by the students (based on the content or concept map)
- Define the **type** and **level** of understanding (with an action verb)
- Specify the **situation** within which students will achieve the outcome



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Example: *Describe the elements and mechanics of the constructive alignment canvas*

10 minutes

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Sharing your ILOs

1. Explain your learning outcomes to your colleague
You can use your concept map as a basis for this
2. Your colleague will give you feedback based on the criteria in the last column of the table
3. Modify your learning outcomes in line with your colleague's comments and write them down on post-it notes (one outcome per post-it note)
4. Place your post-it notes on the constructive alignment canvas

5 minutes x 2

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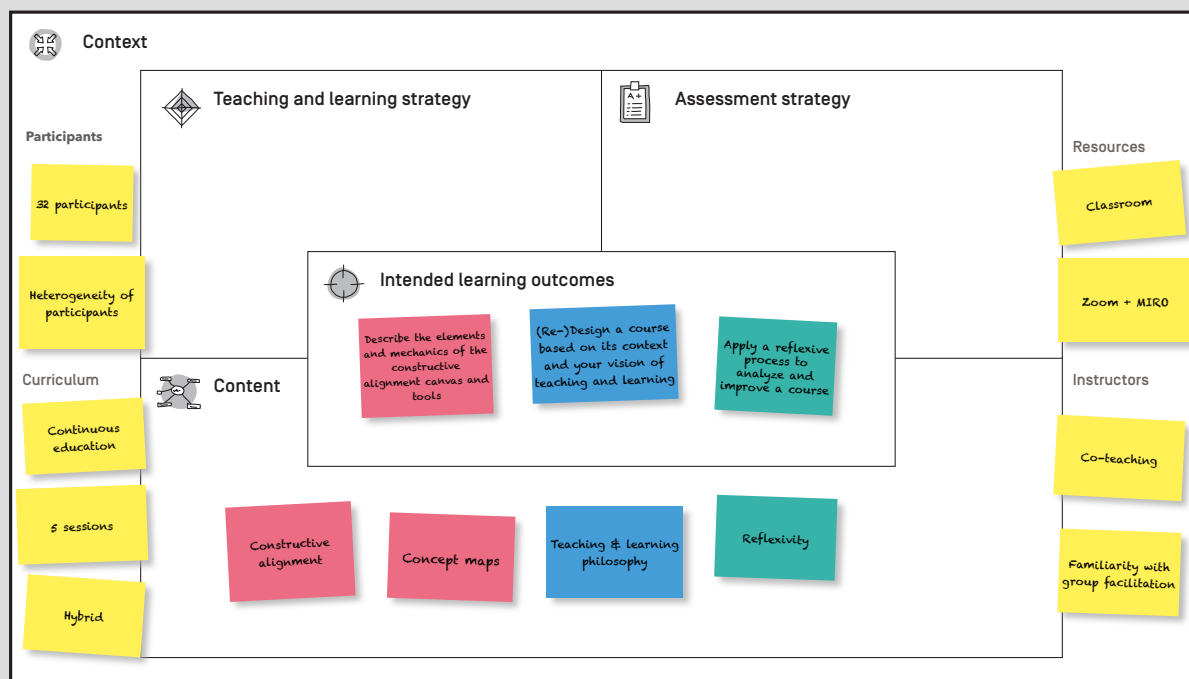
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Q&A on ILOs

The constructive alignment canvas

Course title: Reflecting on university teaching Designed by: ML/MA Date: 24.01.2025 Version: 1.0



Source: Lanarès, J., Laperrouza, M., et Sylvestre E. (2024). Course design. Lausanne: PPUJ.
The list of questions and associated items is not exhaustive. Additional information can be found in the book "Course design".



Assignment

- List the contextual elements of your course (2)
- Draft the intended learning outcomes of your course and check that each is clearly expressed (3.1)
- Review your buddy's contextual elements (2) and ILOs (3.1)

Deadlines:

- 6 November, noon for participant
- 7 November, noon for buddy
- 13 November, noon for coach

Individual MIRO board - 60 minutes (est.)



Next time

Designing effective learning activities for your course

- Debrief on ILOs
- Teaching and learning strategy
- FAIR model

Zoom - 14 November - 2.30PM (Tallinn time)



<https://epfl.zoom.us/my/marc.laperrouza>

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The present activity is concluded under the Education and Youth Programme and the list of measures of the Cohesion Policy Funds Implementation Plan, measure 21.4.4.2 “Links between education, society and the labour market”, intervention “Quality of higher education, internationalisation and doctoral schools”, action “Quality of higher education and internationalisation”.



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