

How to include sustainability competencies in your course

Our students of today are the social actors of tomorrow, they will have an important role and responsibility in tackling sustainability challenges. They need the ability to overcome complex and multifaceted problems that have no clear straightforward solutions. Switching the focus of education to sustainability competencies allows the development of skills, knowledge and tools that are necessary to tackle societal issues.



Teaching sustainability competencies means..

- ✓ Equipping students with the competencies to deal with complex societal challenges.
- ✓ Transcending aims and methods of single disciplines.
- ✓ Transformative, integrative and holistic teaching using a head, heart and hands approach.

Students should be able to..



Make sense of complexity: critical- and systems thinking competency.

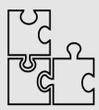


Relate to each other and to sustainability norms: collaborative and normative competency.



Act towards sustainability: strategic and problem-solving competency.

Toolbox



In [teachEUR](#) teaching methods that contribute to the development of the sustainability competencies can be found, they are marked with the symbol of a leaf.

The activities provide a starting point to understand how sustainability can be integrated and to experiment creating sustainability-related content. You are invited to contribute by adding activities related to these competencies. Read how to submit an activity [here](#).

What are the sustainability competencies?

The sustainability competencies consist of sets of knowledge, skills and attitudes that individuals should have in order to face the complexity of the challenges that our society is facing. The competencies are derived from [learning objectives](#) to achieve the Sustainable development goals outlined by the United Nations.

 <p>Systems thinking competency</p> <p>Understand relationships and patterns in complex systems, deal with the uncertainty of real world problems</p>	 <p>Anticipatory competency</p> <p>Deal with multiple possibilities for the future, create own vision, apply the precautionary principle, deal with change and risk.</p>	 <p>Normative competency</p> <p>Reflect on norms and values that promote actions, negotiate sustainability values in situations of conflict of interest or tradeoffs.</p>	 <p>Strategic competency</p> <p>Collectively develop and implement innovative actions to foster sustainability in situations of conflict and beyond.</p>
 <p>Collaboration competency</p> <p>Learn from each other, understand and respect the needs, perspectives and thoughts of others, be sensitive and deal with conflict in a group.</p>	 <p>Critical thinking competency</p> <p>Question norms, practices and opinions, take a position in the sustainability discourse.</p>	 <p>Self-awareness competency</p> <p>Reflect on one's own role in the local community and global society, deal with one's feelings and desires.</p>	 <p>Integrated problem-solving competency</p> <p>Apply different problem-solving frameworks to develop viable, inclusive and equitable solution options that promote sustainability by integrating the other competencies.</p>

Tips for teaching



- State the competencies you are working with explicitly in your learning objectives.
- Focus on a sustainability challenge.
- Consider which discipline-related content can be taught to both address the challenge & foster the sustainability competency.
- Get inspired by the activities provided linked to sustainability competencies in teachEUR!

A study on a framework for key competencies resulted in a refined framework, introducing new competencies like the *values-thinking*, *futures thinking*, *inter- and intrapersonal & implementation competency*. Curious how they relate to each other? Then have a look at the study by Brundiers et al. (2020) at the reference list.

"Based on our experience developing an interdisciplinary honors course we came to the conclusion that it would be helpful to have interdisciplinary and competency based teaching methods that can be used by teachers to create sustainability lessons."

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Sources & additional inspiration

We invite you to add activities to [teachEUR](#) linked to the sustainability competencies. Read [here](#) how you can submit an activity. Include in your submission that the activity is related to the sustainability competencies.

References for the content of this infographic are:

- Brundiers, K., Barth, M., Cebrián, G. et al. Key competencies in sustainability in higher education—toward an agreed-upon reference framework. *Sustain Sci* 16, 13–29 (2021). <https://doi.org/10.1007/s11625-020-00838-2>
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New directions for adult and continuing education*, 1997(74), 5-12.
- Rieckmann, M. (2017). Education for sustainable development goals: Learning objectives. UNESCO Publishing.
- Singleton, J. (2015). Head, heart and hands model for transformative learning: Place as context for changing sustainability values. *Journal of Sustainability Education*, 9(3), 171-187.
- Sommer, M., Wang, Y., Vasques, A. (under review). Transformative, Interdisciplinary and Intercultural Learning for Developing HEI Students' Sustainability-Oriented Competences: A Case Study. *Environment, Development and Sustainability*.