GOAL Syllabus Template

Geoethics' Syllabus for Higher Education

TITLE OF THE CURRICULAR UNIT	*Geoethics*
INTRODUCTION	Description of the importance of teaching Geoethics in Higher Education
IMPLEMENTATION	Description of the: prior knowledge; where it can be implemented (countries, courses, workshops…); when.
AIM	**Aim** · [eɪm | from Latin] It is something intended or desired to be achieved by one's efforts; purpose. At curriculum level, <u>an aim is a general, and somewhat ambiguous, specification of the final intent or purpose to achieve in a syllabus</u>, lesson(s), mission or institutional policy. It corresponds to broader descriptions of purposes or intentions presented in general terms, without specific criteria, and usually addressed to the collective instead of the individual. It is often misused as an equivalent of the term "Objective". Both are the desired result of the work performed by some entity, however, imply different concepts. *Examples:* • AIM: Diagnosing students' Geoethics values. (the teacher wants to…) Thomson P. (2014). Aims and objectives — what's the difference?[Blog Post]. Retrieved from https://patthomson.net/2014/06/09/aims-and-objectives-whats-the-difference/ UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education. Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.
OBJECTIVES	**Objective** · [əbˈdʒɛktɪv | from Latin] It is a specific statement about what students are expected to learn or be able to do as a result of studying a program: learning objective (what students are expected to learn), including products, performance, and processes achieved. The student or learner is taken as the subject in the objective. It is also a measurable operationalization of a policy, strategy or mission: implementation objective.

Objectives can be considered refinements of curricular purposes that, for example, specify: performance standards or those skills and knowledge that students should be able to demonstrate; degree of mastery inferred or precise; and the conditions under which performance will occur. Therefore, they should be concise and understandable for teachers, students and parents; be feasible for teachers and students to do; encompass previous learning and require the student to integrate and then apply certain knowledge, skills and attitudes in order to demonstrate achievement.

It is often incorrectly used as an equivalent of the term "Aim". Both are the desired result of the work performed by some entity, however, imply different concepts.

Examples:

- OBJECTIVE: To identify geoethics´ risks in mining; To argue anthropogenic causes for climate changes. (students have…)

Thomson P. (2014). Aims and objectives — what's the difference?[Blog Post]. Retrieved from https://patthomson.net/2014/06/09/aims-and-objectives-whats-the-difference/

UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education.

Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.

SKILLS	**Skills · [skɪl	from Old Norse]**

The ability to perform tasks and solve problems, highly related to work-based training and vocational courses. It is the ability, proficiency or dexterity to carry out tasks that come from education, training, practice or experience (psychomotor domain). It can enable the practical application of theoretical knowledge to particular tasks or situations. It can be applied more broadly, for example to thinking (the cognitive domain) and to the social relations through sensitive handling of another's feeling (affective domain). It is often misused as an equivalent of the term "Competencies". However, they have different terminology and meaning. Skills focus on the "what" in terms of the

abilities a student needs to perform a specific task or activity. Competencies outline "how" the goals and objectives will be accomplished. They are more detailed and define the requirements for success in broader, more inclusive terms than skills do. Skills + Knowledge + Abilities = Competencies

Examples:

P21 Framework for 21st Century Learning comprises 12 skills that today's students need to master to succeed in their work, life and citizenship during the Information and Technology Age, broken into one of three categories:

- <u>Information, Media and Technology skills</u>:
  - Information Literacy;
  - Media Literacy;
  - ICT (Information, Communications and Technology) Literacy.
- <u>Life and Career skills</u>:
  - Flexibility and Adaptability;
  - Leadership and Responsibility;
  - Initiative and Self-Direction;
  - Productivity and Accountability;
  - Social and Cross-Cultural Skills.
- <u>Learning and Innovation skills</u> (The Four C's):
  - Critical thinking and Problem Solving;
  - Creativity and Innovation;
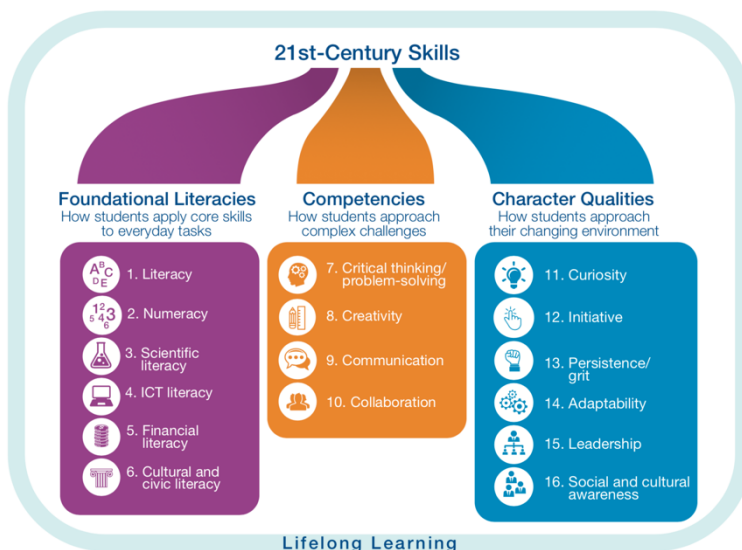 - Collaboration;
  - Communication.

Figure 1 – 21st-Century Skills (WEF, 2016, p. 4).

UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education.

Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.

World Economic Forum (WEF). (2016). *New Vision for Education: Fostering Social and Emotional Learning through Technology.* Genebra: World Economic Forum.

METHODOLOGY AND STRATEGY

Methodologies · [mɛθəˈdɒlədʒi | from Modern Latin]

A body of practices, procedures and rules used by those working in a discipline or research work; a set of working methods. The overall rationale behind a lesson that determinate how to conduct it. Usually reflective of different ontological and epistemological positions. Example: positivism vs interpretivism, qualitative vs quantitive, and objective vs committed.

Methodology and methods have distinctive meanings. The methods, comprising teaching/learning activities which are used when presenting instructional materials or conducting educational activities, are based on the chosen approach and rationale behind (methodology). A methodology comprises the teaching/learning activities, principles, approaches and sets of instruction methods/strategies used in presenting the subject matter to achieve different objectives. The choice of teaching method or methods to be used depends largely on the information or subject to be taught and can also be influenced by students' aptitude and enthusiasm.

Examples:

- "Case-Based Learning (CBL)": A process that employs the use of discipline-specific, situational narratives as a launch pad for student learning. It can cover a wide variety of instructional strategies, including but not limited to, role plays, simulations, debates, analysis and reflection, group projects and problem-solving.
- "Problem-Based Learning (PBL)": A process designed to experientially engage learners in processes of inquiry into complex and real problems of significance and relevance to their lives and learning. It is intended to challenge learners to pursue authentic questions, wonders, and uncertainties in a focused way, which enables them to construct, deepen, and extend their knowledge and understanding.

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Strategies · [ˈstratɪdʒi | from Greek]

A strategy is a plan to achieve a purpose; is more general than a technique but more specific than "Methodology". It's commonly used and accepted as a synonym with "Methods". A method, procedure or activity that is usually designed for teaching or supporting learning. It can involve different ways of organizing the classroom and planning a lesson.

These are ways of presenting instructional materials or conducting educational activities based on the chosen approach. Briefly, a teaching method is a procedure or way of materializing a teaching approach through a systematic plan. A number of different methods may be employed within one lesson or one method may take up the entire lesson, as in the case of a lecture, depending on preferred teaching style, nature of subject, ability of learners, their motivation and time available, etc.

Examples:

- "Debate": is based on activities in which opposing sides of an issue (eg. groups or individuals) make oral presentations before a hearing or judge, following defined formats (eg parliamentary debate) and conventions (eg speaking order).
- "Field-trips": is based on activities where students, teachers, and volunteers leave the school building to find opportunities for experiential learning (eg, in natural environments, museums, businesses, community settings, authentic contexts).
- "Role-playing": is based on a theatrical activity in which a person acts or performs a particular role in order to explore and dramatize the thoughts, feelings, and experiences of another person in a simulated situation.

Desinan, C. (2011). Current teaching and learning strategies. *Metodicki obzori 6* (3), 145-152.

UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education.

Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.

CONTENT	
	- **Geoethics: meaning and values** (Italian team responsible)
- **Geoethics in Georisks** (Italian team responsible)
- **Geoethics in Geoparks** (Brilha and Spain team responsible)
- **Geoethics in Mining** (Portuguese team responsible)
- **Geoethics and water management** (Austrian team responsible)
- **Geoethics in Education: from theory to practice** (Israeli team responsible)

(Please, all teams should try to develop their main theme into sub-themes to be written as subject contents of the syllabus)

Content · [contentum | from Latin] |

	The topics, themes, beliefs, behaviours, concepts and facts, often grouped within each subject or learning area under knowledge, skills, values and attitudes, that are expected to be learned and form the basis of teaching and learning. UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education. Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.
EVALUATION	Description in one or two sentences of the type of evaluation proposed. **Evaluation** · [ɪˌvaljʊˈeɪʃ(ə)n | from Latin] Allows teachers to determine and judge students' views and responses about the content taught and, therefore, the effectiveness of teaching strategies, lesson or course. It is a diagnostic and interactive process between students and teachers that informs about students' evolution, providing information to improve learning and teaching. As a formal process, evaluation can occur at specific occasions throughout the course and curriculum for institutional purposes of quality assurance, as well as auto-reflexion on teacher's professional practice. All the information is then used by teachers to determine the following educational steps, with changes in the learning environment, and is shared with students to help them improve their study habits. To access the effectiveness and the impact that one curse or lesson has had on learner's levels of attainment, both qualitative evidence or quantitative assessment may be used. However, this information is often anonymous and without grading. UNESCO. (2016). *Glossary of Curriculum Terminology*. Genebra: International Bureau of Education. Wallace, S. (2015). *A dictionary of education*. Oxford: Oxford University Press.
REFERENCES	According to APA 6th Edition Style References.