



Recommendations for Supporting and Developing Transferable Skills in Higher Education

InnovEd4TS Project



Summary

InnovEd4Ts – Innovative Education for Transferable Skills – is a European project funded by the programme Erasmus+ as a Strategic Partnership. It was launched in 2019 as a stepping stone in the founding of the Circle U. alliance and involves five universities members of Circle U. (Université Paris Cité, Aarhus University, the University of Oslo, Humboldt Universität, UCLouvain) in partnership with the University of Lisbon.

It focuses on the analysis and the development of initiatives that promote the acquisition of transferable that students need to face future challenges.

Nine innovative projects from the partners of the InnovEd4TS project have been presented and analysed with a focus on their ability to promote transferable skills in Higher Education. The Consortia has developed new tools to analyse those projects. This report is based on a Recommendation Seminar, which took place in Oslo on March 2022, and will showcase the results from the seminar.

The presentations, systematic analyses and thorough discussions that have been carried out through the InnovEd4TS project will play an important part in the future developments of the Circle U. Think & Do Tank, which also focuses on pedagogical innovation.

The next step in the InnovEd4TS project is the launch of a repository to share our findings. The goal is to inspire innovative teachers to include the development of transferable skills in their teaching. This report also states the challenges and opportunities on how to work with innovative. It should also be used for inspiration and future guidance. After a brief presentation of the context and the goals of the InnovEd4TS Project (Chapter 1), this report will give recommendations on how these innovative projects on transferable skills can be developed (Chapter 2) and how they can be internationalised to help creating a European campus (Chapter 3).

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The InnovEd4TS Project and Transferable Skills in Higher Education

With the implementation of the Bologna reforms in the European Higher Education Area (EHEA), the concept of "transferable skills" came to the forefront of debates over the nature and purpose of higher education. Traditionally, university curricula were focused on the transmission and acquisition of subject specific content and the training in subject-specific (research) skills. With the expansion of higher education in Europe and over 40 per cent of each cohort entering higher education, this narrow focus on subject-specific knowledge skills had to be reconsidered.

This is where InnovEd4TS as a project sets in as an exploratory [mapping exercise](#). The InnovEd4TS project was conceived in 2019 as a strategic partnership in preparation for the formation of the European University project Circle U., later formed by five of the six partners in the InnovEd4TS consortium.

The strategic partnership was designed as an [exploratory mapping exercise](#) with three distinct goals:

- 1. To bring together flagship initiatives in teaching and learning from the partner universities in order to identify innovative approaches that could form the backbone of future innovative curricula in European universities;**
- 2. To examine the role transferable skills, play in these innovative approaches to teaching and learning. In the planning stage, each partner university nominated one or more flagship initiatives they wanted to share with the partners;**
- 3. To develop a tool that can support the integration of transferable skills into higher education curricula.**

As a first step, a Curricular Advisory Board (CAB) was formed, consisting of experts from the partners' Centers for Teaching and Learning or Departments of Education.

In a series of workshops and meetings, the Curricular Advisory Board agreed on a joint methodology for the flagship visits: each initiative was visited by peer experts (either didactical experts or educators/researchers with a direct interest in the core theme of the initiative).

The key idea was that these visits should foster open and constructive discussion between the programme team and the visitors and create first contacts between the flagship initiatives with an aim towards future cooperation. The CAB took great care to avoid judgmental notions such as "assessment" or "evaluation".

With regards to the transferable skills, the CAB decided to focus on the 12 key transferable skills identified by the World Economic Forum in its "The Future of Jobs" Report (2018) and mapped them against the transferable skills embedded in the strategic partnerships' curricula. In order to facilitate a focussed discussion of the skills, a booklet with descriptors and learning outcomes for each of these skills was devised. Programme teams were then asked to identify those transferable skills (up to a maximum of three) that matched what their programme taught or helped to develop most closely.

The original intention was to conduct a series of on-site field visits to the nine flagship initiatives. Due to the Covid pandemic, the field visits had to be conducted virtually in the form of videoconferences.

The peer experts met prior to each visit to prepare for the online conferences. They were briefed and debriefed by the members of the Project Coordination group.

TABLE ONE. Distribution of 12 Key Transferable Skills across the nine Flagship Initiatives

Table 1 shows the transferable skills from the nine visits. It shows a clear clustering of the transferable skills: [critical thinking](#) and [teamwork](#) are both featured five times, [creativity](#), [interdisciplinarity](#) and [intercultural understanding](#) four times, [problem-solving](#) twice, [digital literacy](#), [entrepreneurship](#), [global citizenship](#) and [oral communication](#) only once, and [written communication](#) not at all. This pattern requires an interpretation.

Firstly, the "absence" of some key transferable skills from the flagship initiatives does not mean that they are not important to the participating universities or not covered elsewhere in the curriculum. General written and oral communication skills, for example, are deeply embedded, taught and assessed in the context of essays, reports, exams and presentations in the compulsory core curriculum, with specific genres of texts (e.g. CVs,

application letters, exposés or grant applications) covered in other programmes or taught in centres for the development of professional skills. Therefore, an assumption can be made that the flagship initiatives are still for the most part in pilot phases, where they focus on skills not covered elsewhere in the curricular and are considered important for independent learning.

Based on feedback from the flagship teams and peer experts, the structure and purpose of the booklet evolved substantially during the process. While flagship teams considered the booklet a useful tool, they pointed out that:

- The skills their projects were explicitly aimed at were not included in the twelve skills listed;
- The exclusive focus on skills as an outcome undervalued the importance of the didactical process of fostering these skills.

Conversely, the peer experts noted that despite the project's best intentions, the booklet initially still felt like a record of achievement, with the peer experts tasked with determining the skill levels (beginner – intermediate – advanced) students could potentially achieve. Considering these criticisms, the booklet was expanded to include more detailed reflections on the flagship initiatives' target group and the level of skill expected at entry into the programme. The flagship teams were also given greater ownership of the process by stating the level of skill they expected their students to have on successful participation in the programme.

The exploratory phase of the project concluded with a seminar in Oslo in March 2022. The aim of the seminar was to bring key players (peer experts, coordinators, staff and students from the flagship projects) together to review the process. Considering the pandemic, the Oslo seminar was therefore the first opportunity for many of the participants to meet face-to-face.

The seminar was organised as a workshop with two sessions and three working groups. Each group consisted of members from three of the analysed flagship initiatives. In the first session, each group discussed how the projects could be expanded to a European level, within Circle U. or the Strategic Partnership. In the second session, the groups sought to formulate concrete recommendations for the integration of transferable skills into European curricula. In a final plenary session, the recommendations were shared amongst the groups. The seminar concluded in a discussion about how the project could support the development of transferable skills in the future by identifying the obstacles and potential opportunities going forward.

As a result of the field visits, first steps have been made to expand and deepen the collaboration between the strategic partners:

- Coding for Science Education (Oslo) are now in talks with AI SKILLS (Humboldt), a similar project on developing artificial intelligence skills in the humanities and social sciences (still in the planning stages at the start of InnovEd4TS);
- Problem-Based Learning in Health Education (Paris) are in an exchange with the PBL-based model reform degree in medicine at Charité (Berlin), who were not part in the original strategic partnership, but have joined Circle U. as part of Humboldt-Universität.

Table 1. Main Transferable Skills per initiative

Flagship Initiative, Partner	Creativity	Critical thinking	Digital literacy	Entrepreneurship	Global citizenship	Information literacy	Intercultural understanding	Oral communication	Interdisciplinarity	Problem-solving	Teamwork	Written communication
Artistes en Résidence Research Creation, UCLouvain	●							●	●			
Case Competition "Stay Relevant", Aarhus University	●	●										●
Computing in Science Education, University of Oslo	●			●							●	
Corps et Esprit, Esprit de Corps, Université Paris Cité	●									●		●
General Studies/Liberal Arts, University of Lisbon			●					●	●			
IngénieursSud, UCLouvain			●					●	●			
Problem-based Learning in Health Education, Université Paris Cité										●	●	●
Research-based Learning, HU-Q, Humboldt-Universität zu Berlin		●			●							●
Summer University, Aarhus University			●			●		●				●

Note : Information Literacy and Written Communication non identified.

Transversal recommendations: How to develop initiatives for student's transferable skills?

Why is it important to encourage universities to offer students training in transferable skills?

"Transferable skills are skills that are relevant and helpful across different situations and areas of life"¹.

Amongst a large amount of literature on this topic, the InnovEd4TS project would like to emphasise three main reasons why we think it is important for universities to offer transferable skills training:

- **To help students explore their own potential**, to know their own abilities, to be able to assess their own skills, to be their own critical judge and learn how to learn in autonomy;
- **To prepare students to face new or unfamiliar situations with confidence** throughout their life;
- **To give students the ability to integrate quickly and smoothly into their future workplace.** In a global job market, good communication and intercultural skills are of increasing importance.

Autonomy and **adaptation** are key objectives in students' development.

What are the challenges in developing transferable skills?

The pedagogical initiatives encouraging the development of transferable skills are diverse, as reflected in the initiatives selected for our InnovEd4TS project (see Chapter 1). Pedagogical teams can implement them:

- At various levels of study (Bachelor, Master, PhD);
- In the curricula (at the level of a course, a programme or a degree) or outside the curricula (as an option).

Although the characteristics of these initiatives vary, they generally face **three types of interconnected challenges** that are widely shared within the universities of the international InnovEd4TS project:

- **The lack of institutional support & recognition:** innovators sometimes feel "lonely" and their initiative unknown or underestimate at the level of their institution; **the lack of training and guidance;**
- **The lack of assessment:** innovative initiatives are not always evaluated and not always part of an evidence-based education approach, which can have two negative effects: a tendency to reinvent the wheel and the difficulty to build from one's predecessors lessons, successes and mistakes;
- **The difficulty of sustaining those initiatives:** the lack of human and financial resources is often an obstacle to the development and sustainability of these initiatives.

¹ https://www.researchgate.net/publication/307942989_Competence_and_the_Need_for_Transferable_Skills

Four recommendations for developing initiatives that foster students' transferable skills

Pedagogical innovation is a transformation in itself hence the importance of the context for change. Following the first two phases of the InnovEd4TS project (the field study and the workshop, see Chapter 1), we focus on 4 key recommendations at the institutional and individual levels.

Recommendation 1: Involve your university leadership

University leadership should be involved because the **professors' investment in innovative initiatives for transferable skills should be encouraged and valued**, through the development of policy frameworks or other initiatives at the institutional level, for example:

- The **development of teaching portfolio** for each professor in which the quality of the teaching is demonstrated and which is useful for promotion & career;
- The **creation of recognised labels** given by independent and competent Jurys to reward innovative initiatives (e.g. a Circle U. label for innovative initiatives);
- The **organisation of events** to present and display innovations. Such events could be organised at the level of an alliances of universities such as a Circle U.

Recommendation 2: Secure organisational and training support

- **Teaching and Learning Centres aim at training and supporting** professors in their pedagogy. T&L Centres could share resources at the level of a European university alliance. They could work together at developing joint didactical training programmes to help promote innovative pedagogy and transferable skills;
- **Teachers' training and faculty development is of outmost importance to support** the development of initiatives on transferable skills. Dedicated training on transferable skills should be offered to professors. A special training programme could be developed for new professors;
- **Developing Communities of Practice (CoP)** is a way to share practices among innovators in a peer-to-peer environment.

Recommendation 3: Co-design your initiative with others: with students, other colleagues and the extra-academic environment

- **Joint teaching** is optimal, and is compulsory when developing internationalised initiatives;
- **The participation of the students** in the design of the initiatives is also recommended. A "flipped" version of the InnovEd4TS Transferable Skills Booklet could be designed. While the current booklet (pdf) asks teaching staff to identify the transferable skills taught and developed in their projects, a "flipped" version would allow students to assess their own level of skill in each area and identify their own developmental needs and interests, thus allowing tutors and teaching staff to align their activities and support accordingly;
- For challenge-based or problem-based approach, it can be much helpful to **work with external partners**, by developing a network with the cities and/ or the local businesses. The Circle U. Challenge that is organised within our alliance could also be used as a format to experiment new pedagogies to develop student's transferable skills.

Recommendation 4: Assess what you do and share it with others

- Transferable skills are often relegated to the role of "hidden treasures" in innovative programmes. To make the development of transferable skills a more explicit and visible part of the curriculum, **those skills need to be assessed**, either through grids filled by the professor and/or through student's self-assessment;
- **Student feedback** is tremendously important to adapt the course for the next round and enter a virtuous circle of improvement for the initiative;
- **The recognition of those skills** for the students is also important. This can be done through Open Badges for example.

🔗 <https://www.circle-u.eu/initiatives/transferable-skills/booklet.pdf>

Selected examples: How to internationalise and scale up initiatives focusing on transferable skills?

Examples

1. Case Competition Stay Relevant – Aarhus University

At Aarhus University, more than 150 language students participate in a case-competition arranged in collaboration with Aarhus Municipality and Business Aarhus. Business Aarhus locates eight different cases the students solve during the process. Firstly, the students are introduced to a working method called "design thinking". Secondly, the students are given the opportunity to work on a specific problem. Thirdly, the students pitch their solutions in groups to a panel of judges.

The initiative is for BA language students on their last semester. It is part of a programme, and the students do not have normal lectures while they participate. This enables the students to concentrate fully on the project because they do not have other commitments.

The initiative is using the municipality as a moderator for the selection of the companies. They focus on small companies. They reach out to companies, who do not normally look for graduates, and that the students do not normally see as potential workplaces.

Propositions and Recommendations for Scaling up

- ▶ Looking inwards on the initiative it has many strengths as well as opportunities for strengthening the development of transferable skills even more. A recommendation would be to include workshops on brainstorming, to further the development of the students' creativity. Another opportunity to enhance the development of transferable skills could be to integrate more peer feedback in the process, to support the students' reflections and develop their critical thinking.
- ▶ Looking from an international perspective the peer experts had several positive things to say about the format of the case competition, especially the inclusion of the local business community and their role in developing the cases. The solid foundation and format are ideal to upscale, to include more students from different European universities.

The next step could be to include students from different Circle U. universities and hosting one big finally at Aarhus University to find a winner. This process of making the competition go from local to global could potentially create more motivation for the students to join and would give some students an opportunity and motivation to go abroad.

2. HU-Q Programme for Research-based learning – Humboldt University

The HU-Q Programme for research-based learning was introduced at HU in 2012 to create opportunities for students (especially undergraduates) to gain first research experiences, develop their research competencies and pursue their own research interests. It was designed to re-establish the link between research and teaching that had been „lost“ with the introduction of the bachelor degree under Bologna. As a side effect, the HU-Q Programme – in helping student tutors and research staff to translate their research ideas into learning projects – also contributes to developing the quality of teaching.

Transferable skills in the sense of InnovEd4TS were not an explicit focus of the HU-Q programme. It is assumed that students have acquired a basic sense of what critical thinking might mean in their subject/discipline and that they have some teamwork skills already before they embark on their (first) research experience. In that sense, these skills are rarely "taught" in the HU-Q programme, but put in use and developed further by the students as independent learners.

Propositions and Recommendations for Scaling up

- ▶ Looking inward at the project conclusion from the exercise was to re-examine the role transferable skills play in research-based learning and make more explicit (in the training of teaching staff, the teaching and the students' assessment) the transferable skills that at present are only "developed". In particular, the programme team are looking at "creativity" (concerning assessment) and "interdisciplinarity" (concerning the composition).

- ▶ From an international perspective, the peer experts and curricular advisory boards saw great potential in upscaling the initiative. It combines didactical training of junior researchers with research opportunities for students early on in their academic careers. Through the involvement and collaboration with international research projects, many of the Q-Teams use English as a lingua franca and the didactical training is usually done in English, too.
- ▶ A concrete recommendation for scaling up would be the design of a joint module for research-based learning; implemented at all partner universities that can do so, to enable the automatic recognition of study credits earned here for students.

3. Corps et Esprit, Esprit de Corps – Université Paris Cité

This course is open to first year undergraduate students regardless of their discipline. It is multidisciplinary aiming to make students aware of a multidisciplinary approach based on several levels:

- by combining courses in Science, Health and Social Sciences;
- by mixing audiences from these three major sectors of the university;
- by articulating academic courses, bodywork and theatre courses.

The goal is therefore threefold; raise awareness to an interdisciplinary approach, initiate them into bodywork, grasp problems in a collective way, thus developing their ability to collaborative work.

The academic and theatrical parts of the course are directly linked to a major theme (e.g. "Bet", "Covid", ...). This theme is repeated every year and taught by professors in Health, Social Sciences, and Science.

Propositions and Recommendations for Scaling up

- ▶ Courses on the common theme would be held online and delivered by professors from various universities;
- ▶ Students' mobility flows would be open between Université Paris Cité and UCLouvain to work on the theatre performance together (in French);
- ▶ The final theatre performance would be shared in video among partners;
- ▶ Assessment would remain university-based;
- ▶ Budget needed: around 6000€ to fund students' mobility.

4. Computing in Science Education – University of Oslo

At UiO all bachelor programmes within the sciences have been redesigned to integrate computational skills from the first day. All programmes have a course in context-specific programming in the first semester. Thus, physics and mathematics solve mathematical problems in their scientific programming course, chemistry students have applications to chemistry, and biology students learn programming in a biology course where programming is motivated by and integrated in a biological context.

Through this project, students develop digital skills in the form of computational literacy. They learn to use computing as a tool to understand their discipline, to express themselves, to solve problems.

and to be creative. In addition, the students learn more general problems solving skills and workflows used in research, industry and government. Students also gain skills that allow them to participate in research or innovation projects early in their career, opening for a closer coupling between research and education.

Propositions and Recommendations for Scaling up

There is a general consensus for the need for computational skills to be integrated in teaching and learning outcomes across the institutions. To support this need, we suggest leveraging the experience of UiO's Center for Computing in Science Education (CCSE) to help other institutions develop and support initiatives to integrate computational and data science skills in education programs and courses. This can be done by:

- ▶ organising common summer institutes focusing on the pedagogical principles related to integration of computing into disciplinary. The aim is to share experiences, train teachers across disciplines and institutions;
- ▶ develop courses in computational methods that are suited for students across disciplines and provide these courses across all institutions for example in the form of 10 ECTS courses that can be included in institution-specific or institution-wide honours certificate;
- ▶ stimulate staff mobility and the use of inter-institution teaching teams in courses that integrate computing in disciplinary subjects;
- ▶ develop a summer school for students and learning assistants who can then help transform teaching in their home institutions;
- ▶ develop a cross-institution MSCA ITN type network or Erasmus+ KA3 project to support the integration of computing in programs and courses across institutions and develop a research programme on the underlying pedagogical principles.

The idea of an international honours certificate programme was discussed during the Oslo meeting in March 2022. It could be a programme called "Interdisciplinary honours certificate in computational and data science" e.g. Students can meet across disciplines and institutions both physically and digitally. The courses can be problem-based, project-based or case-based learning with teams that span institutions and possibly disciplines. The programme teaches the fundamental skills needed to integrate the use of computational and data science method in various disciplines, such as in natural sciences, engineering, humanities and social sciences. The programme results in an honours certificate that students get in addition to their ordinary certificate. It may be taught with only a few physical meetings, and then the rest is taught with digital collaborations across the institutions.

Such an honours certificate programme is being designed at UiO. It may be adapted to Circle U. and be distributed across Circle U. with modules and specific contributions from other institutions.

5. Summer University – Aarhus University

The Summer University programme at Aarhus consists of a portfolio of courses taught in English at Bachelor's or Master's level within the fields of Culture and Society, Media and Communication, Business, Management and Economics, Psychology, Political Science, Law, Health, Natural Science and Technology. The programme is open for both international students, as well as students from Aarhus University and other Danish Universities.

All teaching at AU Summer University is based on current research and has a strong international perspective. The close link between research and education ensures the quality and depth of the courses. Class sizes range from 20-50 students, and sometimes up to 130. Students come from different institutions and different educational backgrounds.

A setting with Danish and international students and Danish or international guest professors provides development of intercultural competence, communication across cultural and language boundaries, experience with international teamwork and new learning methods, new classmates with different cultural backgrounds and a new environment.

Propositions and Recommendations for Scaling up

- ▶ Looking at the potential to strengthen the development of transferable skills, in particular intercultural understanding, AU Summer University could foster the interaction between Danish and international students even more, especially in informal settings. The multidisciplinary aspect and different cultures could also be used more in the classroom by asking students on perspectives from their different academic backgrounds and cultures. This could strengthen the potential to discover perspectives that are more diverse and strengthen the students' intercultural understanding.
- ▶ Looking from an international perspective, the peer experts and curricular advisory board saw several opportunities for upscaling the initiative in a Circle U context, since AU Summer University already is open to international students. To further the inclusion and development of a European campus the following could be considered:
 - One challenge to engage students from all the Circle U partner universities is that the summer semester is spread out on different times of the year across the universities. One possibility could be to discuss the creation of a summer semester at a Circle U level set on a specific time.
 - Another challenge to engage students is often the expenses of travelling abroad. AU Summer University could investigate if Circle U could provide funding for students and teachers for travel and accommodation.
 - AU Summer University has already started the process of exploring how Circle U. can become a part of the existent set up.


Conclusion: Looking ahead


As described in the introduction to this report the initiatives undertaken through the InnovEd4TS project will play an important part in the future developments of the Circle U. Think & Do Tank. One of the key objectives of the Think & Do Tank is to focus on pedagogical innovation as a means towards sustainable education and by further developing multilingualism within the Circle U. universities. The Think & Do Tank will carry over some of the work already started by InnovEd4TS. It should become an arena for developing experimentations in transferable skills as well as a forum for bringing together innovative professors around the alliance.


The next step in the InnovEd4TS project is the creation of a repository to share our findings in a user- friendly manner. The repository will be free to use, and educators will be able to dive deeper into the different initiatives from the project. The purpose of the repository is to share knowledge and create inspiration for new initiatives. The aim is to encourage educators to work innovatively and implement the development of transferable into their teaching practices. When inspiring teachers to design new innovative initiatives, it is important to be aware of the challenges and opportunities previously described.


Appendix 1.

The description of the InnovEd4TS initiatives in transferable skills


Transferable skills	Contact
<p>Creativity Intercultural understanding Interdisciplinarity</p>	<p>Ralph Dekoninck <i>Professor</i> ralph.dekoninck@uclouvain.be</p> <p>Frédéric Blondeau <i>Cultural department manager</i> frederic.blondeau@uclouvain.be</p>
Description	Learning outcomes
<p>Artiste en Résidence</p> <ul style="list-style-type: none"> • Integrating a cultural and creative dimension into the student’s programme; • Launched in 2005; • Artists in fields as varied as cinema, literature, music, plastic arts, theatre, dance...; • The artist shares his/her experience with the students and introduces them to an artistic practice; • Opened up for wider Research Creation dynamic within the whole institution. <p>Research Creation</p> <ul style="list-style-type: none"> • Focuses on the link between arts and sciences; • Instill a different way of thinking and innovation in a co-creative dynamic; • Support teachers through funding to invite an artist to one of their courses or seminars for a period ranging from one day to one month; • Fund approaches that combine creative and academic research practices and develop artist residencies. 	<p>Artiste en Résidence</p> <ul style="list-style-type: none"> • Aims to enable students to integrate a cultural and creative dimension into their bachelor's programme; • At the end of the seminar, students present to the general public the fruit of their creative work. <p>Research Creation</p> <ul style="list-style-type: none"> • Aim to integrate art into research.
Teaching methods and tools	
<p>Approximately 20 to 30 students from UCLouvain participate each year. One semester - 30 hours of classes.</p>	
Learn more	
<p> https://uclouvain.be/fr/etudier/culture/artistes-en-residence.html</p>	

Transferable skills	Contact
<p>Creativity Critical thinking Teamwork</p>	<p>Katrine Solvang Larsen <i>Chief Consultant</i> katrinesolvang@au.dk</p>
Description	Learning outcomes
<p>160 language students participate in the case-competition arranged in collaboration with Aarhus Municipality and Business Aarhus. Business Aarhus locates the 8 different cases the students will be working on solving. Firstly, the students will be introduced to a working method called "design thinking". Secondly, the students will be given the chance to work on a specific problem. Thirdly, the students will pitch their solution in groups to a panel of judges.</p> <p>The initiative is for BA language students on their last semester.</p> <p>The initiative is part of a programme, and the students do not have normal lectures while they participate. This allows the students to concentrate fully on the project because they do not have other engagements. In theory, the initiative is mandatory, but voluntary in practice. It is not part of an exam, and there are no requirements. A number of students choose not to participate.</p> <p>The initiative is using the municipality as a moderator for the selection of the companies. They focus on small companies. They reach out to companies, who do not normally look for graduates, and that the students do not normally see as potential workplaces (match-making).</p>	<p>Students will get a better understanding of small and medium sized companies as well as the kind of challenges they are facing.</p> <p>Participation in the Stay Relevant Case Competition will enable students to:</p> <ul style="list-style-type: none"> • Demonstrate understanding of the ways in which theoretical knowledge from their degree programs can be communicated and used in relation to a relevant labor market; • Give presentations by making pitches. Independently communicate the relevance of academic theories and methods in relation to the labor market. Use their own academic expertise to solve problems which are relevant for the labor market; • Independently adapt their academic skills for use in society as a whole. Take part in development work in a constructive manner. Develop skills in relation to working with design processes.
Teaching methods and tools	Strengths and Opportunities
<p>The students will be introduced to the working method "Design Thinking" and get the chance to develop their skills in relation to working with design processes. The students will work on real world problems giving them a better understanding of business life and the labor market. Finally, the students learn how to pitch and get the chance to meet future employers.</p>	<p>The Case Competition has a good format, which could be expanded.</p> <p>Going from local to global would create more motivation for the students to join. And will also give some students a chance and motivation to go abroad.</p>
Learn more	
<p> https://studerende.au.dk/en/studies/subject-portals/arts/newsandevents/events-students-at-the-faculty-of-arts/stay-relevant-2021</p>	


Transferable skills	Contact
<p>Creativity Digital literacy Problem-solving</p> <p>Through this project, students develop digital skills in the form of computational literacy. They learn to use computing as a tool to understand their discipline, to express themselves, to solve problems and to be creative. In addition, the students learn more general problems-solving skills and workflows used in research, industry and government. Students also gain skills that allow them to participate in research or innovation projects early in their career, opening for a closer coupling between research and education.</p>	<p>Anders Malthe-Sørenssen <i>Professor</i> anders.malthe-sorensen@fys.uio.no</p>
Description	Learning outcomes
<p>From 2017 all bachelor programmes within the sciences at UiO has been redesigned to integrate programming from the first day. All programs have a course in context-specific programming in the first semester. Thus, physics and mathematics solve mathematical problem in their scientific programming course, chemistry students have applications to chemistry, and biology students learn programming in a biology course where programming is motivated by and integrated in a biological context.</p>	<p>In physics, for example computing provides us with robust mathematical methods that allow us to solve practically any physics problem. Thus, we are no longer limited by traditional mathematics. Students can learn robust, powerful and adaptable solution methods – computing methods – in which they write computer programmes to solve problems using workflows similar to that of research or industry. Contents and approaches can be chosen for pedagogical or motivational reasons instead of mathematical limitations. Examples can be based on real data, and realistic and research-inspired problems can be introduced from day one, opening for more exploration, creativity and project-based learning approaches.</p>
Teaching methods and tools	Strengths and Opportunities
<p>Epistemic agency: the ways in which students take control and ownership over their own scientifically authentic processes of learning and inquiry.</p> <p>Students engage in:</p> <ul style="list-style-type: none"> • Authentic scientific practices; • Authentic cycles of inquiry; • Shared knowledge creation. 	<p>Computational essays are ideal, since students do:</p> <ul style="list-style-type: none"> • Coding; • Modeling; • Investigation; • Presentation.
Learn more	
<p> https://www.mn.uio.no/ccse/english</p>	


Transferable skills	Contact
<p>Creativity Interdisciplinarity Teamwork</p>	<p>Anne Vanet <i>Vice-Rector for Digitalisation</i> anne.vanet@u-paris.fr</p>
Description	Learning outcomes
<p>Open to undergraduate students (first year) regardless of their discipline. This multidisciplinary course aims to make students aware of a multidisciplinary approach on several levels:</p> <ul style="list-style-type: none"> • by combining courses in Science, Health and Social Sciences; • by mixing audiences from these three major sectors of the university; • by articulating academic courses, bodywork and theatre courses. <p>The aim is not only to make students aware of the interest of a multidisciplinary approach providing them with exact sciences' and humanities' approaches on common themes, but also to initiate them into bodywork and focus, and finally to make them grasp problems in a collective way, thus developing their ability to collaborative work.</p> <p>The academic and theatrical parts of the course are directly linked to a major theme (e.g. "Bet", "Covid"). This theme is repeated every year and taught by professors in Health, Social Sciences, and Science.</p>	<ul style="list-style-type: none"> ▶ Acquire knowledge and a multidisciplinary approach to the major issues of our world, by following courses of a very different nature from those of the Bachelor's degree specialties in which the students are registered; ▶ Meet students from other departments and set up a project together; ▶ Create a multidisciplinary network; ▶ Develop collective and individual creative skills.
Teaching methods and tools	Strengths and Opportunities
<ul style="list-style-type: none"> ▶ Combining courses in Science, Health and Social Sciences around a common theme, with a variety of speakers within and outside academia; ▶ Mixing audiences from the three major sectors of the university; ▶ Articulating academic courses, bodywork and theatre courses. 	<ul style="list-style-type: none"> ▶ The programme is unique in that it develops a broad range of skills; ▶ A clear strength is that the course introduces a new kind of relationship between the students and the professors; the approach of the professors evolves towards more facilitation and interaction; ▶ Students involved are from various disciplines. Students gain self-reflection and self-awareness and experience in teamwork; ▶ The annual theme allows students to connect to research in another discipline; ▶ Final theatrical performance allows public visibility and fosters students' engagement.
Learn more	
<p> https://www.circle-u.eu/initiatives/transferable-skills/field-mission-5.html</p>	

Transferable skills	Contact
<p>Critical thinking Intercultural understanding Interdisciplinarity</p> <p>Students are given a thorough grounding in logical and argumentative practices, interpretive and analytical skills, and familiarity with a sizeable and demanding body of complex texts and problems on which to rehearse such skills and practices. So the students have several opportunities to develop the transferable competences according to the project (e.g. Interdisciplinary and Intercultural understanding). Irrespective of outcomes, such a programme fosters in its students an autonomous and inquisitive sense of self and world. Given the wide spectrum of major and minor fields of study at their disposal, students who have successfully completed their BA are in position to apply to graduate programmes in many different fields.</p>	<p>Maria de Fátima Reis <i>Professor</i> fatimareis@letras.ulisboa.pt</p>
Description	Learning outcomes
<p>This course aims to familiarise students with a set of literary, scientific, historical, philosophical, political, etc., that form the core of Western culture, and give students the possibility of critically discussing arguments and theories, of analysing texts, in most of the arduous cases, and to implicitly recognise the centrality of the readings that make up the course. The course consists of a set of expert conferences on subject texts and diverse genres that have decisively shaped the way people think and act. Every short cycle of monographic conferences, a discussion class follows in which all students participate.</p>	<ul style="list-style-type: none"> ▶ Acquiring an ecumenical sense of the relationship between the arts, philosophical discussions and scientific discussions for the relevant period; ▶ Becoming acquainted with a corpus of major texts in those fields.
Teaching methods and tools	
<p>Practical work of guided readings.</p>	
Strengths and Opportunities	
<p>The Liberal Arts programme allows students to take classes from eight different schools in the University: Arts and Humanities, Sciences, Fine Arts, Economics and Business, Law, Psychology, Social Sciences and Human Kinetics. The programme comprises a 60 ECTS mandatory core curriculum and a 120 ECTS free quota. It is structured as a major/minor degree. The core curriculum includes a Language requirement (12 to 18 ECTS), a Great Books three-unit sequence (18 ECTS), a one- or two-course Tools requirement (6 to 12 ECTS) and a two- course Great Questions requirement (12 ECTS).</p> <p>Students can choose from between eighteen foreign Languages (e.g. , German, Arabic, Hindi, Italian, Russian, Turkish, English); three Great Books (e.g., Antiquity and Middle Ages, from Romanticism to the Present) ten different Tools units (e.g., Critical Thinking, Language and Communication, Calculation and differential calculation, Probabilities and Statistics or Programming and IT) and Great Questions units (e.g. in science Astronomy and Astrophysics; Ethics in economics and international business; Energy sustainability; Earth environment and climate or in Arts and Humanities, Art study, Study of cultures or Literature study). The free quota allows students to choose from a great number of areas of concentration whose combination does not usually fit into traditional European higher-education single-track programmes. Students can graduate with a double major, one major and up to two minors, up to four minors, or with no declared majors or minors. There are no field constraints to possible combinations. Liberal Arts Students are assigned individual tutors, designed to guide them through their various course choices, especially during the initial year.</p>	
Learn more	
<ul style="list-style-type: none"> 🔗 https://www.letras.ulisboa.pt/pt/ensino/licenciaturas/unidades-curriculares 🔗 https://www.letras.ulisboa.pt/pt/estudantes/boas-vindas-a-letras 🔗 https://ensina.rtp.pt/artigo/outra-escola-saber-de-tudo-um-pouco 	

Transferable skills	Contact
<p>Critical thinking Intercultural understanding Interdisciplinarity</p>	<p>Jean-Pierre Raskin jean-pierre.raskin@uclouvain.be</p> <p>Stéphanie Merle smerle@louvaincooperation.org</p>
Description	Learning outcomes
<ul style="list-style-type: none"> ▶ Work on technical projects/challenges (water, agro-ecology, energy...) and propose sustainable solutions for the environment, economically and socially; ▶ Identification of a technical issue in a Southern country by associations, cooperatives, NGOs, ... which are in direct contact with the local population; ▶ Formation of groups: 4 Belgian students + 4 Southern local students; ▶ Collaborative work via emails, Skype, WhatsApp, etc. during one full academic year to figure out an appropriate and sustainable solution; ▶ Students are supervised by scientists and experts of Northern and Southern institutions; ▶ They attend lectures/practical labs about sustainable development and build prototypes; ▶ They present their technical solution in front of a transdisciplinary panel; ▶ They all meet on the field to implement the technical solution, one month in Summer. 	<ul style="list-style-type: none"> ▶ Learn about the interdependence between technical and non-technical parameters (economics, environmental, social ...); ▶ Realise that any technical solution is neither universal nor neutral; ▶ Think globally and act locally; ▶ Accept and embrace the complexity of societal challenges; ▶ Adopt a systemic approach; ▶ Work collectively; build bridges between disciplines and actors.
Teaching methods and tools	Strengths and Opportunities
<ul style="list-style-type: none"> ▶ An elective course of 5 ECTS open to students from both BA and Master level from the SST sector; ▶ Approximately 150 students from UCLouvain and in the South participate each year; ▶ Takes place all year around with students travelling to the Southern countries where their project is implemented during one month; ▶ All tasks done in teams composed of students from UCLouvain and from the partners' university in the South (Africa, South America, South-East Asia). 	<ul style="list-style-type: none"> ▶ Interesting initiative and successful way to integrate SDG's into education; ▶ Jean-Pierre is essential to the success. How can UCLouvain secure the institutionalisation of the course? This is important to transfer to other universities; ▶ Possible to improve the programme by applying learning objectives to Southern Students as well. This would also make credit transfer possible.
Learn more	
 https://www.ingenieursud.be	


Transferable skills	Contact
<p>Oral communication Problem-solving Teamwork</p>	<p>Viktoria Nagy <i>PBL-Project Coordinator</i> viktoria.nagy@u-paris.fr</p>
Description	Learning outcomes
<p>The PBL project for elective undergraduate tutorials was introduced at the Medical Faculty in cooperation with Maastricht University in 2019 to mitigate the lack of a student- and skill-centred interdisciplinary approach, as French higher education and in particular medical education tends to rely on teacher-centred, content-based and monodisciplinary teaching models.</p> <p>The programme has been upscaled recently, in 2021-2022; both in terms of the number of students and teachers/tutors involved but also in terms of its stakes, as the new PBL track involves all small class tutorials of the 2nd year core curriculum.</p> <p>The main goal of the programme is to allow students to learn medical knowledge cooperatively in a contextualised setting while solving clinical cases, and at the same time, to acquire competences (expertise and soft skills) that are easily transferable to the clinical practice. Among those competences, we find all 12 transferable skills (at a certain extent) as defined by the InnovEd4TS programme, however, problem-solving, teamwork and oral communication stand out, the latter even more so, as the curriculum is bilingual (French or English).</p> <p>Another objective of the programme is to reinforce student autonomy (learning how to learn) and staff training (teaching the teachers) with the help of a pilot training module.</p>	<p>The main goal of the programme is to allow students to learn medical knowledge cooperatively in a contextualised setting while solving clinical cases, and at the same time, to acquire competences (expertise and soft skills) that are easily transferable to the clinical practice. Hence, they learn:</p> <ul style="list-style-type: none"> • How to identify a clinical problem as a team (teamwork, problem-solving); • How to negotiate and set learning goals cooperatively to understand the problem (teamwork, problem-solving, oral communication); • How to share tasks (teamwork, oral communication); • Conduct research in the literature individually (information literacy, problem-solving); • Share and apply research results to solve the clinical problem cooperatively (teamwork, problem-solving, oral communication, digital literacy). <p>A secondary goal of the programme is to train conscious, life-long learners. To do so, regular feedback sessions and a complete training module has been attached to the programme during which students can reflect on their own learning methodology, more than that, they can contribute to the co-design of the programme as it evolves.</p>
Teaching methods and tools	Strengths and Opportunities
<p>Students are asked to swap roles throughout the semester to experience the position of a team member, of a team leader and of a secretary – and reflect on their performance.</p> <p>Student autonomy is reinforced because of the reinforced self-reflective process ("learning how to learn"). They are asked to self-assess and evaluate team dynamics (soft skills) and performance (expertise and knowledge acquisition) cooperatively in each session and then individually with their tutors minimum twice each semester.</p> <p>The pilot training model aims to "teach the teachers" (tutors) how to evolve from the neutral knowledge transmitter position into that of a facilitator of the learning process and that of a mentor able to provide customised feedback on students personal and professional development.</p> <p>Besides feedback sessions, students and tutors fill in quantitative and qualitative questionnaires – this way they directly contribute to the scientific evaluation and co-design of the programme.</p>	<ul style="list-style-type: none"> ▶ Great team of skilled educators; ▶ Great and really valuable addition to the curriculum; ▶ Great potential for comparative research on traditional and PBL learning formats (large cohort, small PBL cohort within). <hr/> <p>Learn more</p> <p> https://www.circle-u.eu/initiatives/transferable-skills/field-mission-8.html</p>

Transferable skills	Contact
<p>Critical thinking Entrepreneurship Teamwork</p>	<p>Wolfgang Deicke <i>Head of bologna.lab</i> 030 2093 70818 wolfgang.deicke@hu-berlin.de</p>
Description	Learning outcomes
<p>The HU-Q Programme for research-based learning was introduced at HU in 2012 to create opportunities for students (especially undergraduates) to gain first research experiences, develop their research competencies and pursue their own research interests. It was designed to re-establish the link between research and teaching that had been "lost" with the introduction of the bachelor degree under Bologna. As a side effect, the HU-Q Programme – in helping student tutors and research staff to translate their research ideas into learning projects – also contributes to developing the quality of teaching.</p> <p>Transferable skills in the sense of InnovEd4TS are not an explicit focus of the HU-Q programme. It is assumed that students have acquired a basic sense of what critical thinking might mean in their subject/discipline and that they have some teamwork skills already before they embark on their (first) research experience. In that sense, these skills are rarely "taught" in the HU-Q programme, but put in use and developed further by the students as independent learners.</p>	<p>The programme's main aim is to develop students' research interest and competencies. For the purpose of this exercise, the following aspects appear particularly relevant:</p> <ul style="list-style-type: none"> • Experience the research process with all its ups and downs (occasions for critical thinking and self-reflection); • Take charge of - and responsibility for – significant parts of the research process both individually and as a team (critical thinking, decision-making, teamwork); • Apply and develop their research skills individually and as teams (critical thinking, teamwork).
Teaching methods and tools	Strengths and Opportunities
<p>The programme's common framework is the didactical training programme "Research-based learning". Here, staff are encouraged to reflect, redesign and develop their planned courses in ways that take facilitate the greatest possible degree of student initiative, participation and co-ownership of the project. They are encouraged to change roles over the course of the project (from initiator/teacher to coach/facilitator/manager). How this is implemented varies depending on the nature of the research topic and the academic subject/discipline's curricular requirements, the individual HU-Q lead and the participants.</p>	<ul style="list-style-type: none"> ▶ Training the students to act in "the real world" and having great collaboration skills, which makes them attractive for employment; ▶ The student centred approach is the strength of this programme; ▶ Opportunity is to develop the concept to an international programme.
Learn more	
<p> https://bolognalab.hu-berlin.de/en/projekte-des-bologna.labs-en/q-programm</p>	

Transferable skills	Contact
<p>Critical thinking Global citizenship Intercultural understanding Teamwork</p> <p>A setting with Danish and international students & Danish or international guest professors provide:</p> <ul style="list-style-type: none"> • Development of intercultural competence; • Communication across cultural and language boundaries; • Experience with international team work; • Internationalisation at home for AU students; • Adaptability; • Intensive course - problem solving, time management, collaboration skills, planning. <p>The peer experts identified the following transferable skills during the visit:</p> <ul style="list-style-type: none"> • Global citizenship; • Intercultural understanding; • Critical thinking; • Teamwork. 	<p>International Center at Aarhus University ic@au.dk</p>
Description	Learning outcomes
<p>The Summer University programme at Aarhus consists of a portfolio of courses taught in English at Bachelor's or Master's level within the fields of Culture and Society, Media and Communication, Business, Management and Economics, Psychology, Political Science, Law, Health, Natural Science and Technology.</p> <p>All teaching at AU Summer University is based on current research and has a strong international perspective. The close link between research and education ensures the quality and depth of the courses. Class sizes range from 20-50 students.</p> <p>Summer University is different from normal classes. It is a shorter time period, and the atmosphere is different. People are more motivated. The interactions between internationals and Danish students are important to create intercultural understanding.</p> <p>The students are from different institutions and from different educational backgrounds. It offers a change of perspective.</p>	<p>The aim and learning outcome differs for each course.</p> <p>The general purpose of the internationalisation electives is to provide students with the opportunity to use a foreign language in an academic setting, and to work with an academic theme. The purpose is also to teach the students to operate in a cross-disciplinary teaching context, thereby gaining a cross-disciplinary perspective on their own subject area.</p> <p>The course contributes to the international dimension of the degree programme and improves the students' understanding of the academic profile of their degree programme.</p>
Teaching methods and tools	Strengths and Opportunities
<p>The form of instruction varies for each Summer University Course, but they mainly contain of lectures and group work. The students' learning before and during the course will often be supported by online self-study material.</p>	<ul style="list-style-type: none"> ▶ Good and varied methods in teaching; ▶ The students coming from different educational backgrounds; ▶ Fostering friendships and strengthening intercultural understanding; ▶ Potential to discover more diverse perspectives.
Learn more	
<p> https://international.au.dk/education/admissions/summeruniversity</p>	

Appendix 2.

The Booklet

The background is a solid red color. It features several overlapping, semi-transparent red shapes. A large, light-red circular arc is positioned in the upper left quadrant. Below it, a darker red circular arc is centered. At the bottom center, there is a vertical, light-red rectangular bar. The overall composition is minimalist and geometric.

How to use this booklet?

This booklet is a tool and a guide for discussions about transferable skills in innovative pedagogical initiatives. The purpose of this booklet is twofold.

The first purpose of the booklet is **to identify and analyse students' level of transferable skills** developed by innovative initiatives. This analysis can be made in different ways.

1. As a self-reflection by the project owner;
2. As a peer-reflection in collaboration between a group of peer experts, the project owner and the students.

The second purpose of the booklet is **to create new innovative initiatives** that should foster transferable skills. For this purpose the booklet can be used as a reference tool and inspiration on which level of transferable skill the initiative should develop.

How to use this booklet for an analysis:

This booklet is made of 3 sections:

Section 1. Intention

[To be filled in by the project owner or students]

- ▶ Description of the flagship initiative;
- ▶ Skills to analyse;
- ▶ Level of skills beforehand;

Section 2. Reflection

[To be filled in by the project owner and by the group of peer experts]

- ▶ Self-analysis by the project owner or discussion by the group of peer experts;
- ▶ Methodology of the iceberg;
- ▶ Suggestions of teaching methods and tools;
- ▶ Grid for the analysis;
- ▶ Areas for reflection ;

[To be filled in by the project owner both in the peer- and self-analysis]

Section 3. References

- ▶ Definitions and grids of all 12 transferable skills.

[To complete the grid on page 11, 12 and 13, don't hesitate to use the reference section below]

UNIVERSITY	FLAGSHIP INITIATIVE

Section 1. Intention

Build the landscape (max. 150 words)

Skills (Up to 3, as listed in Section 3)

<input type="radio"/> Creativity	<input type="radio"/> Entrepreneurship	<input type="radio"/> Intercultural understanding	<input type="radio"/> Problem-solving
<input type="radio"/> Critical thinking	<input type="radio"/> Global citizenship	<input type="radio"/> Interdisciplinarity	<input type="radio"/> Teamwork
<input type="radio"/> Digital literacy	<input type="radio"/> Information literacy	<input type="radio"/> Oral communication	<input type="radio"/> Written communication

Level of Study

<input type="radio"/> Bachelor	<input type="radio"/> Master	<input type="radio"/> PhD	<input type="radio"/> Other (e.g. CPD)
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Type of Activity

<input type="radio"/> Compulsory core course	<input type="radio"/> Optional course	<input type="radio"/> Elective course	<input type="radio"/> Extracurricular course
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Assessment

<input type="radio"/> Summative (Graded)	<input type="radio"/> Formative (Ungraded, Pass/Fail)	<input type="radio"/> Non-assessed
<input type="text"/> Number of students involved	<input type="text"/> Number of study credits (ECTS)	

UNIVERSITY	FLAGSHIP INITIATIVE

Aim, learning outcomes (max. 100 words)

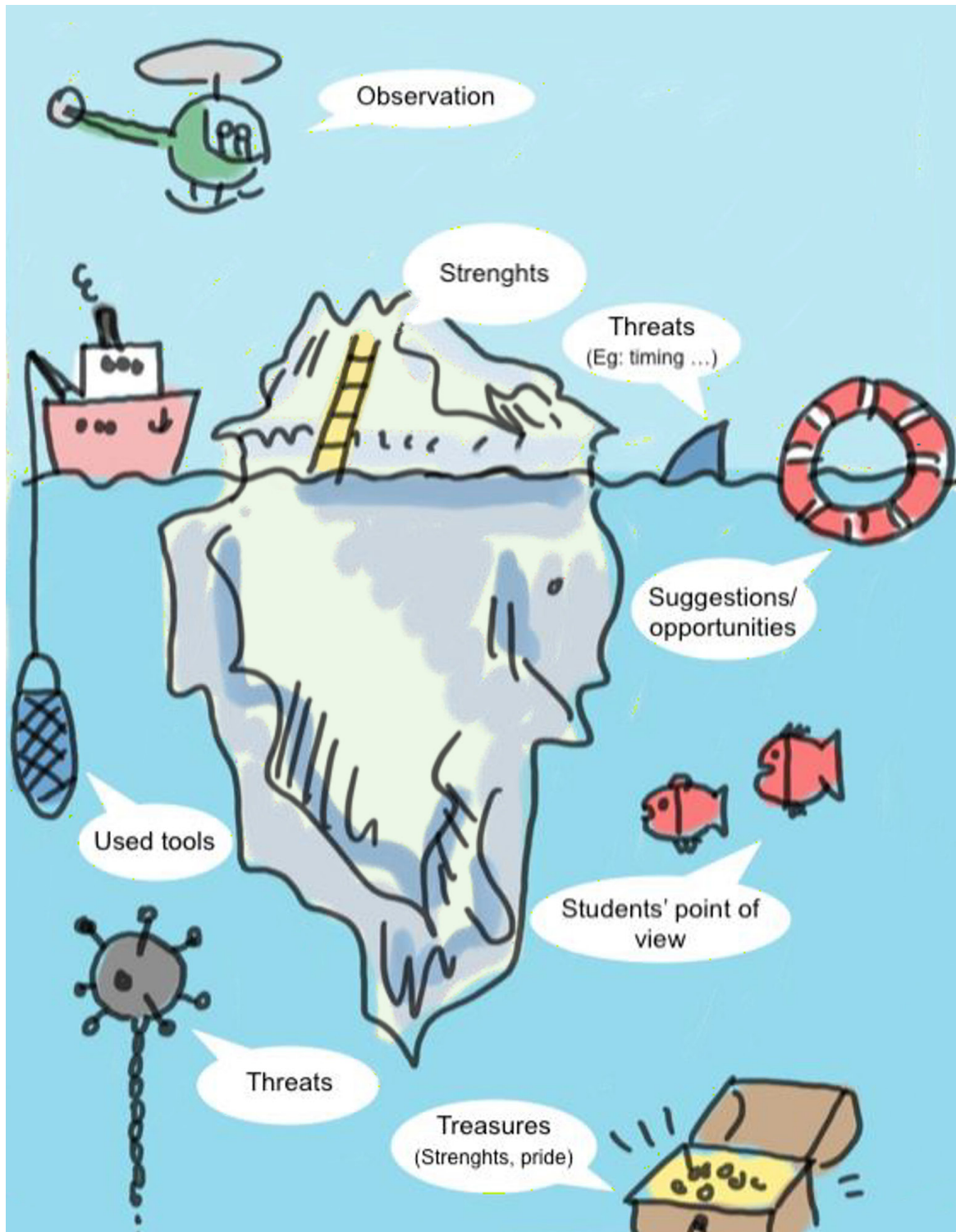
How, teaching methods and tools (max. 100 words)

What level of skills did the students possess before being exposed to the initiative?

	NOVICE	INTERMEDIATE	ADVANCED
	Awareness of base level knowledge, explain	Apply the concept somewhat, analyse	Intentional and effective application or transfer to a new situation
Skill 1 -----			
Skill 2 -----			
Skill 3 -----			

Section 2. Reflection

Iceberg methodology for the analysis



UNIVERSITY	FLAGSHIP INITIATIVE

Clarification (max. 150 words)

Skills

Teaching methods and tools (max. 100 words)

UNIVERSITY	FLAGSHIP INITIATIVE

Transferable Skills

How to use the descriptors of the 12 transferable skills?

By "transferable skills", we mean key skills which – once developed – can easily be transferred from one area of application into other domains. In combination with deep disciplinary knowledge, they enable graduates to address future societal challenges and navigate a constantly evolving labor market.

The World Economic Forum* has identified the ten most important skills needed for the future labor force, with at the top of the list: the ability to solve complex problems, critical thinking and creativity.

Universities are well aware of the need to teach transferable skills in addition to – and in conjunction with – disciplinary knowledge. The aim of this report is therefore to focus on 12 "most needed skills".

For the purpose of gaining a better understanding of what aspects of a particular set of skills a particular flagship project or learning initiative seeks to develop, we have distinguished different levels of skills (novice – intermediate – advanced) and formulated descriptors for them.

These descriptors are intended to help the programme team to identify which particular aspect and which particular level of transferable skill they are aiming at with their programme/initiative. The descriptors are not exhaustive or empirically tested. They are meant to help the peer experts to get a better understanding of the transferable skills the majority of the participants are supposed to develop in the course of a programme/initiative.

Skills development within an initiative will not be uniform. Rather, it depends on the level of the skills students come with at the beginning of the project (slide 7) and the nature and intensity of learning activities in the programme. Similarly, we would not expect all aspects of a transferrable skill to be **taught, developed and assessed** in a particular programme or learning initiative – particularly if they are aimed at developing more than one skill.

You should, therefore, only pick those transferable skills and activity descriptors which you are confident your students have the opportunity to develop and need to demonstrate in their contributions to the project (irrespective of whether these are assessed formally (summative assessment) or just evident in their contribution.)

- Creativity;
- Critical thinking;
- Digital literacy;
- Entrepreneurship;
- Global citizenship;
- Information literacy;
- Intercultural understanding;
- Interdisciplinarity;
- Oral communication;
- Problem-solving;
- Teamwork;
- Written communication.

*Learn more:

<https://www.weforum.org/agenda/2020/10/top-10-work-skills-of-tomorrow-how-long-it-takes-to-learn-them>

UNIVERSITY	FLAGSHIP INITIATIVE

Analysis · Skill 1

NOVICE	INTERMEDIATE	ADVANCED
Awareness of base level knowledge, explain	Apply the concept somewhat, analyse	Intentional and effective application or transfer to a new situation

UNIVERSITY	FLAGSHIP INITIATIVE

Analysis · Skill 2

NOVICE	INTERMEDIATE	ADVANCED
Awareness of base level knowledge, explain	Apply the concept somewhat, analyse	Intentional and effective application or transfer to a new situation

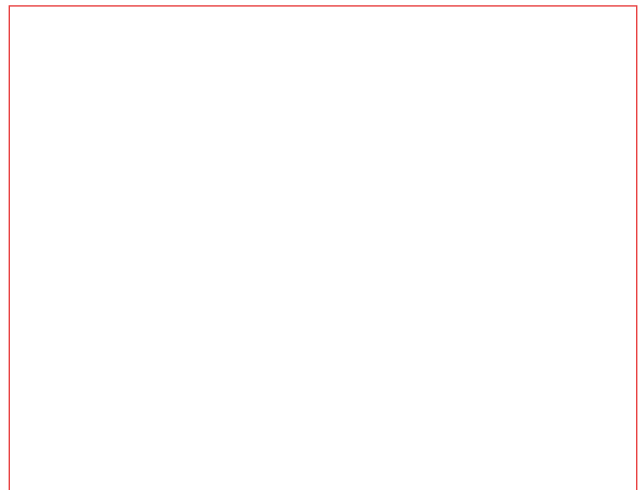
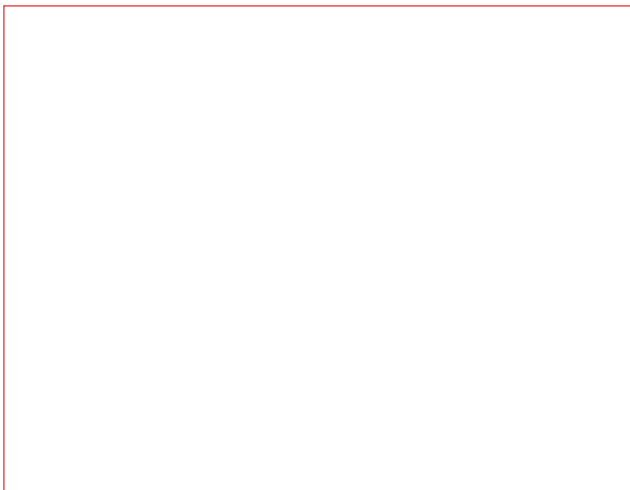
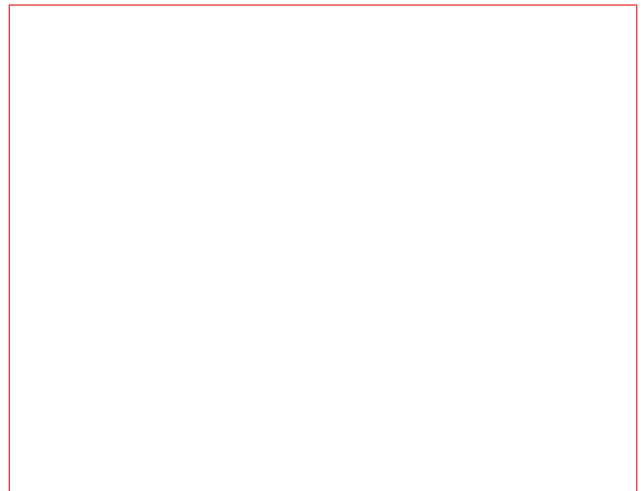
UNIVERSITY	FLAGSHIP INITIATIVE

Analysis · Skill 3

NOVICE	INTERMEDIATE	ADVANCED
Awareness of base level knowledge, explain	Apply the concept somewhat, analyse	Intentional and effective application or transfer to a new situation

UNIVERSITY	FLAGSHIP INITIATIVE

Areas for reflexion



UNIVERSITY	FLAGSHIP INITIATIVE

Notes:

Section 3. References

Creativity

Creativity is the ability or attitude that enables individuals to develop ideas and opportunities, to create something new or create something in a new way, utilising the knowledge she/he has already acquired.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Reuse or restate ideas from the sources that are consulted.	Combine ideas in ways that are derived from the thinking of others.	Combine ideas in original and surprising ways.
Feel, empathise, observe, describe relevant experience, knowledge and information.	Explore, seek, brainstorm and generate ideas; examine the chosen idea(s).	Examine a variety of ideas, reflect and assess the novelty of the chosen solution of its relevance and of its possible consequences.
Think and act beyond one's first idea but few connections are made between ideas or domains.	Generate, stretch and play with one unusual or radical idea and push it to its limits before making the final choice.	Generate several unusual, risky or radical ideas and push some to their limits before making the final choice.
	Produce, perform, envision, prototype a product, a solution or a performance in a personally novel way.	Goes beyond knowledge and known rules and show a clear awareness of why the final choices are made and of the areas of novelty and risk that were pursued.

Critical thinking

Critical thinking is the ability:

- to question norms, ideas, practices and opinions;
- to analyse, to question, to evaluate information, content or arguments before accepting or formulating an opinion or a conclusion;
- to question and evaluate solutions.

It requires a willingness to engage in reasoning.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
<p>Identify different viewpoints.</p> <p>Describe the differences between them.</p> <p>Position themselves in relation to them.</p>	<p>Engage with different viewpoints.</p> <p>Examine their respective strengths and weaknesses.</p> <p>Provide a reasoned argument for their own position.</p>	<p>Compare and contrast different viewpoints.</p> <p>Critically examine the evidence in their support as well as the underlying assumptions informing them before arriving at their own position.</p>
<p>Focus on explaining and finding support for an initial (plausible) way of formulating and solving a given problem.</p>	<p>Consider alternative ways of solving a given problem.</p>	<p>Consider several ways of formulating and answering a given problem.</p>
<p>Do not clearly identify the assumptions of the examined theories or practices or their strengths and weaknesses.</p>	<p>Show a clear understanding of the strength and limitations of the chosen and the alternative positions.</p>	<p>Show an openness to the ideas, critiques or feedback of others when relevant.</p>
<p>Draw a conclusion logically tied to information. Some related outcomes are identified clearly.</p>	<p>Draw a conclusion logically tied to a range of information, including opposing viewpoints; related outcomes are identified clearly.</p>	<p>Draw a conclusion and related outcomes logically to place evidence and perspectives discussed in priority order.</p>

Digital literacy

Digital literacy is the ability to use digital methods, technologies and media, both discipline specific and generic, in a disciplined, safe and secure manner in educational as well as professional and civic context.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Describe relevant digital methods, technologies and/or media but have limited knowledge about underlying ideas and their relevance to a broader context.	Describe relevant digital methods, technologies and/or media and can explain the underlying ideas, their potential and limitations in a broader context.	Demonstrate a good understanding of relevant digital methods, technologies and/or media and provide critical explanations of underlying ideas, potentials and limitations in a broader context.
Use relevant digital methods, technologies and/or media to solve academic and/or professional tasks and problems.	Use and adjust relevant digital methods, technologies and/or media to solve academic and/or professional tasks and problems, but with limited critical reflection.	Use and adjust relevant digital methods, technologies and/or media to solve academic and/or professional tasks and problems and reflects critically on the results.
Select and use relevant digital methods, technologies and/or media but with limited adaptation to the specific context.	Select and use relevant digital methods, technologies and/or media with some appropriate adaptation to the specific context.	Suggest and use relevant digital methods, technologies and/or media appropriately and argue critically about relevance, potentials and limitations.
On a general level describe issues related to security, safety and ethics in the use of digital technologies in educational, professional or civic contexts.	Reflect on issues related to security, safety and ethics in the use of digital technologies with direct coupling to the specific educational, professional and/or civic context.	Reflect on issues related to security, safety and ethics in the use of digital technologies with direct coupling to the specific educational, professional and/or civic context and identify appropriate preventive actions.

Entrepreneurship

Entrepreneurship is a series of skills enabling an individual to:

- enhance a concept, idea or product;
- recognise and act on opportunities;
- be willing to embrace risk and responsibility;
- initiate and lead a project in order to create social, economic and cultural value.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Analyse the situation in an appropriate way but barely identify areas for improvement.	Analyse the situation in an appropriate way and identify areas for improvement.	Comprehensively analyse the situation and continuously identify areas for improvement.
Conduct small-scale search for new procedures and methods.	Search for new procedures, with an adequate level of quality.	Search for innovative procedures and methods. Evaluate their effectiveness.
Describe a new way of doing things, although the pros and cons are not yet detailed.	Describe new ways of doing things, some pros and cons are analysed.	Identify and apply new ways of doing things, based on pros and cons. Mobilise resources in support of an idea or project.
Replicate procedures and known problems.	Know why known procedures are suitable or not for a known or new problem.	Address an unknown procedure and new situations and make well-considered proposals.
Find and use resources (material, non-material and digital resources) needed to turn ideas into actions.	Gather and manage different type of resources to create value for others, make the most of resources.	Gather and manage all the resources needed at any stage, define strategies to mobilise the resources needed to create value for others.
Develop multiple ideas that create value for others.	Test and refine ideas that create value for others and identify changes needed to achieve it.	Transform ideas into solutions that create value for other, while identifying the variety of stakeholders affected and adopting their perspectives.

Global citizenship

Global citizenship is thinking like global citizens, considering global issues based on a deep understanding of diverse values. Promoting wellbeing not only of the self but also contributing to the welfare of others. Knowing to exercise the rights and obligations of citizenship at local, state and national level.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Describe a range of local/national/ regional/global issues relevant to the specific educational/ professional context.	Describe a range of local/national/ regional/global issues relevant to the specific educational/ professional context and relate the issues to relevant societal topics.	Describe a range of local/national/ regional/global issues relevant to the specific educational/ professional context and relate the issues to relevant societal and cultural topics in a critical and reflective manner.
Use knowledge and procedures with basic awareness of the societal and cultural context.	Use knowledge and procedures with systematic and relevant awareness of the societal and cultural context.	Use knowledge and procedures with sensitive and critical awareness of the societal and cultural context.
Act professionally in a given situation but demonstrate modest sensitivity to societal and cultural dynamics.	Act professionally in a given situation and demonstrate the ability to adjust one's own role to societal and cultural dynamics.	Act professionally in a given situation and demonstrate the ability to adjust and reflect on one's own role to societal and cultural dynamics.
Adjust one's own communication and behavior to the actual context but demonstrate little flexibility and sensitivity to the dynamics of the situation.	Adjust one's own communication and behavior to the actual context and demonstrate flexibility and sensitivity to the dynamics of the situation.	Adjust one's own communication and behavior to the actual context and demonstrate reflective and critical flexibility and sensitivity to the dynamics of the situation.

Information literacy

Information literacy is a set of skills, attitudes and knowledge necessary to:

- know when information is needed to help solve a problem or make a decision;
- identify, articulate, evaluate, understand, interpret and use that information.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Define the scope of the research question or hypothesis incompletely.	Define the scope of the research question or hypothesis completely.	Effectively define the scope of the research question or hypothesis/ assumption.
Take all information without comparative analysis.	Compare different sources to access the reliability of the information.	Assess the validity and credibility of information using a range of criteria.
Have a good knowledge of vocabulary, functional grammar and the functions of language.	Have a good awareness of the main types of verbal interaction, a range of literacy and non-literacy texts, and the main features of different styles and registers of language.	Have a perfect mastery of grammatical and vocabulary subtleties.
Look for information online using a search engine.	Use different search engines to find information. Use some filters when searching.	Use advanced search strategies to find reliable information.

Interdisciplinarity

Interdisciplinarity is the interaction of two or more existing disciplines. It is a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt adequately by a single discipline.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Ask open questions to understand the reasoning involved in the disciplines.	Explain the disciplinary perspectives that are used to interpret the knowledge elements.	Make meaningful and creative connections between relevant disciplinary insights and produce a more comprehensive understanding or solution.
Present examples, facts, or theories from more than one field of study or perspective.	Connect examples, facts or theories from more than one field of study or perspective.	Create wholes out of multiple parts or draws conclusions by combining examples, facts, or theories from more than one field of study or perspective.
Use skills, abilities, theories or methodologies gained in one situation in a new situation to contribute to understanding of problems or issues.	Adapt and apply skills, abilities, theories or methodologies gained in one situation to new situations to solve problems or explore issues.	Adapt and apply , independently, skills, abilities, theories or methodologies gained in one situation to new situations to solve difficult problems or explore complex issues in original ways.
Use a format, language, graph, visual representation, etc. that connects in a basic way relevant disciplinary knowledge for the particular purpose.	Use a format, language, graph, visual representation, etc. that explicitly connects content, form and demonstrate awareness of purpose.	Use a format, language, graph, visual representation, etc. in ways that enhance meaning, making clear the interdependence of language and meaning, thought, and expression.
Demonstrate an ability to apply disciplinary concept and language to a given problem and define the limitation of them.	Describe an awareness and sensitivity towards the limitation and difficulty of language and context.	Demonstrate an ability to comment ideas and concepts across disciplinary boundaries.

Intercultural understanding

Intercultural understanding is the knowledge and understanding of intercultural interactions and sociocultural differences by individuals or groups within a society. It involves knowledge about one's own culture, other cultures and the similarities and differences between cultures.

Acquiring intercultural understanding means recognising that one's own perspective is shaped by multiple influences and supports effective and appropriate interaction in a variety of cultural contexts.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
<p>Demonstrate partial understanding of the complexity of another culture in relation to its history, values, politics, communication styles, economy or beliefs and practices.</p>	<p>Demonstrate adequate understanding of the complexity of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices.</p>	<p>Demonstrate sophisticated understanding of the complexity of another culture in relation to its history, values, politics, communication styles, economy or beliefs and practices.</p>
<p>Identify the components of another culture but respond in all situations with own worldview.</p>	<p>Recognise intellectual and emotional dimensions of more than one worldview. Sometimes use more than one worldview in interactions with others.</p>	<p>Interpret intercultural experience from own's perspectives or from more than one worldview. Demonstrate ability to act in a supportive manner that recognise the feelings of another cultural group.</p>
<p>Ask simple or surface questions about other cultures.</p>	<p>Ask deeper questions about other cultures and seek out answer to these questions.</p>	<p>Ask complex questions about other cultures, seek out and articulate answers that reflect multiple cultural perspectives.</p> <p>Look at one's own culture from a different perspective.</p>
<p>Express openness to most interactions with individuals from different cultures.</p> <p>Have difficulty suspending any judgment in her/his interactions but is aware of own judgment.</p> <p>Express a willingness to change.</p>	<p>Initiate and develop interactions with individuals from different cultures.</p> <p>Begin to suspend judgment in valuing her/his interactions with culturally different others.</p>	<p>Develop interactions with individuals from different cultures.</p> <p>Suspend judgment in valuing her/his interactions with culturally different others.</p>

Oral communication

Communication is a skill of presenting information in a clear, concise and meaningful way. Articulate thoughts, ideas or messages in order to inform, educate, influence, motivate or persuade.

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding or to promote change in the listeners' attitude, values, beliefs or behaviors. It requires an ability to choose an appropriate content to the situation and to interact with various interlocutors on less familiar subjects in varied circumstances.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
<p>Make language choices that are mundane, commonplace and partially support the effectiveness of the presentation.</p> <p>Language presentation is generally appropriate to audience.</p>	<p>Make language choices that are thoughtful and generally support the effectiveness of the presentation.</p> <p>Language presentation is appropriate to audience.</p>	<p>Make language choices that are imaginative, memorable and compelling and enhance the effectiveness of the presentation.</p> <p>Language presentation is continually adapted to audience.</p>
<p>Make a presentation understandable through appropriate technical gestures (posture, eye contact and vocal expressiveness).</p> <p>Speaker appears tentative.</p>	<p>Make a presentation interesting through appropriate technical gesture (posture, eye contact and vocal expressiveness).</p> <p>Speaker appears comfortable.</p>	<p>Make a presentation compelling through appropriate technical gestures (posture, eye contact and vocal expressiveness).</p> <p>Speaker appears polished and confident.</p>
<p>Central message is basically understandable but is not often repeated and is not memorable.</p>	<p>Central message is clear and consistent with the supporting material.</p>	<p>Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported).</p>
<p>Acknowledge and respond to questioning based on their factual knowledge of the topic.</p>	<p>Respond and react knowledgeably to questioning of their position.</p>	<p>Actively engage in and help co-create multiple interactions.</p>
<p>Offer a basic defence of their argument in response to questioning.</p>	<p>Spontaneously defend, adapt or expand their argument in response to critical questioning.</p>	<p>Creatively adapt their argument and engage with critical questioning.</p>

Written communication

Communication is a skill of presenting information in a clear, concise and meaningful way. Articulate thoughts, ideas or messages in order to inform, educate, influence, motivate or persuade.

Written communication is the development and expression of ideas in writing.

Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Demonstrate awareness of context, audience, purpose and of the assigned task(s).	Demonstrate adequate consideration of context, audience, and purpose, and a clear focus on the assigned task(s).	Demonstrate a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focus all elements of the work.
Use credible and/or relevant sources and materials to support ideas that are appropriate for the discipline or genre of the writing.	Support consistently their argument with (a range of) relevant sources and materials appropriate for the discipline and genre of writing.	Engage competently with a range of relevant sources and materials to develop ideas appropriate to the discipline and subject of the writing.
Use language that generally conveys meaning to readers with clarity, although the writing may include some errors.	Use straightforward language that generally conveys meaning to readers. The language has few errors.	Use language skillfully to communicate meaning to readers with clarity and fluency and is virtually error free.
Present a text mostly descriptive of the event or fact.	Present the information in a structured and contextualised way.	Present a coherent and argued analysis.
Present ideas but with no clear relationships and transitions.	Present ideas but not in a logical manner or with inadequate transitions.	Present ideas logically and systematically organised with paragraphs and adequate transitions.
Keep the readers attention for a short period of time.	Keep readers mostly interested.	Keep and guide readers' attention throughout the paper.

Problem-solving

Problem-solving is the process of designing, evaluating and implementing a strategy to answer an open-ended question or achieve a desired goal. This requires knowledge, facts, and data to effectively solve problems, analyse issues or make decisions.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Identify a problem.	Analyse a problem.	Redefine a problem.
Find support and assistance when a problem occurs or if confronted to an unknown situation.	Solve in an autonomous way most of the more frequent problems or a set of similar problems.	Solve in an autonomous way almost all problems, including new ones (transfer to a new situation).
Solve some routine problems. Apply known tools and methods or procedures.	Solve problems by exploring and comparing options and alternatives.	Select the best solution among a set of suitable methods, tools or procedures.
Identify a range of appropriate approaches helpful to solve known problems.	Select suitable methods, tools or procedures and assess their effectiveness.	Discuss options and alternatives, including their limits, for known and new situations.
Demonstrate that tools, procedures and methods can help in solving problems but that tools have their limitations.	Explain and justify why a selected approach is a good choice.	Combine multiple approaches in an effective and an optimal way to justify why it is the best choice.

Teamwork

Teamwork is being able to act as part of a group composed of individual team members who have different skill sets, personalities and work styles. It requires to operate and communicate smoothly and efficiently within a group, interacting with others on the team, monitoring or evaluating progress, urging the team on when needed, contributing innovative new ideas in order to deliver efficient and effective results.

STUDENTS SHOULD BE ABLE TO		
NOVICE	INTERMEDIATE	ADVANCED
Identify the operating modes of a team.	Identify their own role and the role of each team member in a group.	Change position and role. Lead and develop collective work.
Share ideas.	Offer new suggestions to advance the work of the group.	Help the team move forward by articulating alternative ideas or proposals and being able to take calculated risks.
Engage team members by taking turns and listening to others without interrupting.	Engage team members in ways that facilitate their contributions to meetings by constructively building upon or synthesising the contributions of others.	Engage team members in ways that facilitate their contributions to meetings by constructively building upon or synthesising the contributions of others as well as noticing when someone is not participating and inviting him to engage.
Complete all assigned tasks by deadline.	Plan and complete all assigned tasks by deadline. Can explain why and how work accomplished advances the project.	Plan and complete all assigned tasks by deadline and solve the tasks in a time efficient manner. Can draw lessons about why and how work accomplished advances the project. Proactively help other team members to complete their assigned tasks to a similar level of excellence.
Support a constructive team climate by doing any one of the following: <ul style="list-style-type: none"> • treat team members respectfully by being polite and constructive in communication; • stay positive to convey a positive attitude about the team and its work. 	Support a constructive team climate by doing any one of the following: <ul style="list-style-type: none"> • treat team members respectfully by being polite and constructive in communication; • stay positive to convey a positive attitude about the team and its work; • motivate teammates by expressing confidence about the importance of the task and the team’s ability to accomplish it. 	Support a constructive team climate by doing any one of the following: <ul style="list-style-type: none"> • treat team members respectfully by being polite and constructive in communication; • stay positive to convey a positive attitude about the team and its work; • motivate teammates by expressing confidence about the importance of the task and the team’s ability to accomplish it; • provide assistance and/or encouragement to team members.
Accept alternate viewpoints/ideas/opinions.	Identify and acknowledge conflict and stay engaged with it.	Address destructive conflict directly and constructively, help to manage/ resolve it in a way that strengthens overall team cohesiveness and future effectiveness.
Describe own contribution.	Reflect on own contribution.	Reflect and adjust on own contribution.

