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# CRISS OPERATIONAL CONCEPT

## AREAS, SUB-COMPETENCES, PERFORMANCE CRITERIA AND INDICATORS

<b>1. Digital Citizenship</b> Manage digital identities, health and well-being, personal and data protection, and engage in citizenship.					
<b>1.1. Creating and managing digital identity with privacy, health and well-being</b> To create, manage and protect digital identities. To take care of physical and psychological health and well-being.					
<b>Performance criteria</b>	<b>Indicator 1</b>	<b>Indicator 2</b>	<b>Indicator 3</b>	<b>Indicator 4</b>	<b>Indicator 5</b>

1.1.1	Be able to manage one's own digital identity, in terms of presence and visibility in the network, for different purposes (e.g. traceability, social network profiles and legal conditions, e-portfolio, CV, etc.).	Awareness of the benefits and risks of presenting themselves in different ways online (e.g. academic and personal).	Identity management. Level of exposure of student's digital footprint (in terms of risks).	Level of coherence between students' self-perception of their digital identity and their digital footprint.	-	-
1.1.2	Be able to protect one's own digital identity (e.g. verify privacy policy, traceability, use safety websites, passwords and Wi-Fi connections, update software, etc.).	Quality of the verification of the privacy policies.	Strategy used for guarding against identity theft and scams that try to access their private information online.	-	-	-
1.1.3	Adopt healthy habits in relation to ergonomics and to prevent other physical risks (e.g. posture, hours, radiation, decibels, etc.).	Awareness of the dangers bad posture has on health (e.g. back pain, fatigue, eye strain, headache, etc.).	Awareness of the dangers of using headphones or being exposed to high volume have on health.	Consciousness of the damage electromagnetic radiation has on health and its presence in digital environments.	Adaptation of the workspace and habits for preventing physical risks.	-
1.1.4	Be aware of psychological and emotional risks generated by the inappropriate use of digital technologies and Internet (e.g. cyberbullying, sexting, addiction, violent content, etc.) and avoid them.	Awareness of the uses of technology that may affect behaviour and wellbeing in and out of the classroom (e.g. cyberbullying, sexting, addiction, violent content, etc.).	Knowledge of the legal aspects linked to online behaviour and action according to them.	Avoidance of psychological risks (e.g. cyberbullying, sexting, addiction, violent content, etc.) and how to react.	-	-

## 1.2. Protecting data and digital systems and be ethical and responsible when using digital technology

To protect personal data and digital systems. To be aware of the variety of ways to publish digital content, and to be ethical and responsible when using digital technologies.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
1.2.1	Know how to protect personal data that can be compromised in digital environments (e.g. access rights, right of cancellation, etc.).	Knowledge about security strategies and rules to protect personal data.	Use of safety strategies to protect personal data.	-	-	-
1.2.2	Protect devices and digital systems (e.g. correct switch off, electrical surge, etc.), and against external threats (e.g. using antivirus, passwords, etc.).	Knowledge of the dangers in using Internet, which can affect devices and digital systems.	Use of different strategies to keep devices and digital systems safe against external threats.	Assurance of devices protection and knowledge about what or who to turn to when in need.	-	-
1.2.3	Know image and author rights and different forms of digital content diffusion (e.g. copyright, copyleft, creative commons, licences, etc.), using them ethically and responsibly (e.g. citations, etc.).	Knowledge about the legal and ethical dimensions of respecting others' work.	Ethical and responsible behaviour respecting the creators and users of others' work.	-	-	-

### 1.3. Engaging in citizenship using digital technologies

To engage in improving social well-being and environmental sustainability and to enhance personal empowerment using digital technologies.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
1.3.1	Be aware of how to use and consume digital technologies in a sustainable way for the environment (e.g. ways to save energy, know the impact of technology on the environment, recycle, etc.).	Knowledge of the impact of using digital technologies on the environment.	Acting responsibly when using digital technologies and respecting the environment.	-	-	-
1.3.2	Enhance citizen autonomy using digital technologies (e.g. reserve museum tickets, train tickets, renew or reserve library books, medical appointment, co-responsible processes, etc.).	Adequacy of the use of digital technologies to the personal need.	Autonomous use of digital technologies.	-	-	-
1.3.3	Participate actively through digital technologies in social improvement and environmental sustainability initiatives (e.g. contribute to virtual communities, support social platforms and organizations, etc.).	Quality of participation in initiatives to reduce the human impact and protect the environment.	Frequency of the participation in initiatives.	Use different online synchronous or asynchronous tools.	-	-

## 2. Digital communication and collaboration

Interact in digital environments, share content, and collaborate in projects through digital technologies

### 2.1. Communicating through digital technologies

To interact properly through appropriate digital technologies and to share data, information and digital content in a variety of forms, ways and contexts.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
2.1.1	To adapt communication to the specific audience and to be aware of cultural and generational diversity in digital environments, also being aware of netiquette.	Use of the appropriate language for a specific audience (e.g. age, professional role, cultural sensibilities, relationship, etc.).	Adequacy of the behaviour when using specific digital tools and platforms (e.g. blog, chat, networks, e- mail, etc.).	Adequate use of netiquette.	-	-
2.1.2	Communicate and publish through different and adequate digital tools and platforms (e.g. e-mail, blogs, web page, wikis, etc.).	Knowledge of the advantages and disadvantages of different forms of digital communication and when it is appropriate to use each.	Adequacy of the different digital tools and platforms to communicate and publish.	Quality of the communications and publications.	-	-
2.1.3	Manage different communication systems to interact and share information with others (e.g. forums, store and share files in the cloud, send attachments, upload	Interaction and exchange of online information with other students through one or more communication systems.	Suitability of the tool used for communicating and sharing information.	Adequacy and coherence of the information communicated or shared.	Frequency of interaction in digital environments.	-

	photos, etc.).					
<b>2.2. Collaborating through digital technologies</b> To collaborate using digital technologies to develop projects and create resources and knowledge.						
<b>Performance criteria</b>		<b>Indicator 1</b>	<b>Indicator 2</b>	<b>Indicator 3</b>	<b>Indicator 4</b>	<b>Indicator 5</b>
2.2.1	Plan, organize and manage collaborative work for operating agreements, distribution processes and tasks of the group, using suitable collaborative digital tools (e.g. time-management and scheduling on-line calendar).	Coherence and viability of the plan.	Adequacy of the digital tools for the planning and the development of the work.	-	-	-
2.2.2	Participate actively in the group tasks through collaborative virtual environments (e.g. different instant messaging on-line chat, video conferencing, collaborative networks, etc.).	Frequency of the interaction in virtual environment.	Quality of interventions: argumentation of one's own interventions and consideration of the interventions of the group.	Use of different online collaborative tools.	-	-

2.2.3	Act ethically, contributing to the cohesion of the team with balanced and efficient communication, respecting the views of others and managing the group problems or conflicts when working in digital environments.	Respect and tolerance for others (classmates, peers, teachers, parents...) and their opinions.	Use of constructive and positive communication.	Ability to negotiate (resolve conflicts, identify one's own and others' positions, exchange concessions and reach satisfactory agreements, etc.).	Equitable and efficient communication.	-
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### 3. Search and manage digital information

Search and select through digital technologies, manage data, information and digital content.

#### 3.1. Planning, searching and critically selecting data, information and digital content

To plan, search and critically select data, in order to find the right information and digital content.

	Performance criteria	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
3.1.1	Plan an information search based on specific needs and conditions (e.g. time, goals, constraints, etc.).	Adequacy and coherence of planning information search to the needs.	Viability of the planning in terms of timing, content, tasks, tools, goals, etc.	Review of different steps of the plan and their accomplishment and updating if needed.	-	-

3.1.2	Implement a coherent search strategy using appropriate keywords, different information search tools (e.g. search engines, directories, etc.) and search filters (e.g. Boolean operators, searcher configurations, etc.).	Quality and suitability of concepts or keywords' list for the information search.	Adequacy of different information search tools.	Adequacy of search filters.	-	-
3.1.3	Use appropriate criteria to select the found information (e.g. comprehension, quality, adequacy, etc.) and contrast critically different sources and verify their reliability.	Quality, reliability, comprehension and adequacy of the information found.	Use of different sources searching the same information.	Comparison (regarding the quality, reliability, comprehension and adequacy) of the information found to select it.	-	-
<b>3.2. Managing data, information and digital content</b> To organise, store and retrieve data, information and content in digital environments.						
	<b>Performance criteria</b>	<b>Indicator 1</b>	<b>Indicator 2</b>	<b>Indicator 3</b>	<b>Indicator 4</b>	<b>Indicator 5</b>
3.2.1	Adopt a system for management, storage and retrieval of information (e.g. folders, connection between devices, use the cloud, safe copies, etc.).	Use of a coherent, clear and efficient system to manage, store or retrieve information.	Use different safe strategies (cloud, computer memory, external memory, etc.).	Coherence of the own strategy with the one adopted by the collaborative environment.	-	-

3.2.2	Organize autonomously the Personal Learning Environment (people, devices, tools, resources).	Flexibility and integration of one's own system with the people who share learning (teachers, students, experts, etc.).	Efficient and coherent management of tools and devices.	Efficient and coherent management of the resources.	-	-
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#### 4. Digital content creation

Produce, edit and create digital content and develop creativity.

##### 4.1. Developing digital content

To produce and to edit digital content in different formats using the appropriate digital technologies.

	Performance criteria	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
4.1.1	Generate or modify digital content composed by text and tables, taking into account the design, structure, wording, etc.	Creation or modification of text and tables using the appropriate options of a tool.	Content quality (argumentation, syntax, cohesion, clarity, etc.).	Format quality of the text and the tables (wording, fonts, size, etc.).	Relevance of the information according to the objectives.	-
4.1.2	Treat data involving numbers, formulas, calculus and	Appropriate use of spreadsheet to format and calculate data.	Appropriate use of one or more sheets to manage data and graphs.	Quality of the graphs (type, legend, colours, title, etc.).	Relevance of the data and graphs selected according to objectives.	-

	graphs.					
4.1.3	Produce, edit or improve digital content composed by images, sound and videos, taking into account the whole elaboration process (e.g. conception, design, etc.).	Editing or improving digital content using the appropriate options of a tool.	Design of a draft to produce digital content including format, content, objectives and structure.	Content quality of the final product.	Technical quality of the images, sounds and videos.	Relevance of the product according to the objectives.
4.1.4	Elaborate presentations taking into account the context and conditions (e.g. audience, time, academic requirements, etc.).	Elaboration of a presentation using the appropriate options of the tool selected.	Adequacy of the content taking into account the goals of the project.	Adjustment of the presentation to time criteria, audience, etc.	Quality of the presentation (linguistics, structure coherence, index, objectives, conclusion...).	-
4.1.5	Elaborate digital content integrating different formats, according to the aim of the project.	Integration of the elements in different formats into a digital document (text, images, video, etc.) using the appropriate options of the tool selected.	Adequately format digital content (elements in the document, organization, etc.).	Quality of the digital content taking into account the aim of the project (composition, message, weight of meanings, clarity, structure coherence,	-	-

				etc.).		
<b>4.2. Developing creativity using digital technologies</b> To create new content and knowledge and to express oneself through digital technologies.						
	<b>Performance criteria</b>	<b>Indicator 1</b>	<b>Indicator 2</b>	<b>Indicator 3</b>	<b>Indicator 4</b>	<b>Indicator 5</b>
4.2.1	Generate new information, be creative and express self when elaborating digital content in different formats.	Originality of the concepts when generating new digital content.	Originality of the aesthetic.	Development a personal style.	Adequacy of the content taking into account the goals of the project.	-
4.2.2	Create representations of knowledge using digital formats (e.g. maps, diagrams, schemes, conceptual maps, etc.).	Selection of the best tool for creating representations according to the objectives.	Appropriate use of the different tools to represent knowledge.	Coherence between content and representation.	Format quality of the representations (simple, clear, etc.).	-

## 5. Digital problem solving

Identify needs, solve technical problems, configure environments and devices and program

### 5.1. Applying digital solutions to identified needs

To understand where one's own digital competence needs to be improved or updated. To identify needs, select the appropriate digital solution and apply it.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
5.1.1	Be aware of the existence of a variety of digital solutions, evaluate critically the adequacy of each of them in relation to a specific task and be able to identify and use the appropriate one in relation to the purposes (e.g. tools, devices, applications, software, etc.).	Awareness of the existence of the variety of technological tools and approaches and of their continuous evolution.	Critical analysis of the adequacy of different tools in relation to a purpose.	Knowledge of the appropriate tool for a specific purpose and how to use it.	-	-
5.1.2	To understand where one's own digital competence needs to be improved or updated. To seek opportunities for self-development and to keep up-to-date with the digital evolution.	Awareness of the acquired knowledge and one's technological abilities.	Detection the one's own knowledge gaps when using digital technology.	Use of different strategies to find new sources of knowledge.	-	-

## 5.2. Solving technical problems

To detect and solve technical problems.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
5.2.1	Be able to detect technical problems that can arise while operating devices and using digital environments (e.g. hardware, operating system, software, applications, etc.).	Awareness that problems usually have a specific origin.	Identification of the technical problems, by oneself or asking for help.	Adoption of a positive attitude to detect technical problems.	-	-
5.2.2	Be able to find appropriate solutions to solve technical problems (in software or hardware) or ask for help when problems cannot be solved.	Search for possible causes of a problem once it's detected.	Adoption of a solution by oneself, or asking for help.	Adoption of a positive attitude to solve technical problems.	-	-

## 5.3. Programming and configuring digital tools, applications and devices

To plan and develop a sequence of understandable instructions for digital systems, to solve a given problem or perform a specific task.

Performance criteria		Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
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5.3.1	Customise digital environments depending on personal needs (e.g. accessibility, settings, additional components, etc.).	Awareness of the personal needs related to learning process.	Selection of some options to customise the personal digital environment.	Updating new options to improve the personal environment when necessary.	-	-
5.3.2	To know and use the suitable elements of the computational thinking through the design and implementation of programming projects.	Knowledge of the different characteristics of the computational thinking process.	Implementation of some computational thinking elements in tools or applications (Excel macros, APPS, etc.).	Applications of the computational thinking process in a specific programming language.	Application of the computational thinking process in different situations.	-