

SYLLABUS ECCC

Area: **Digital competences – DigComp 2.1**

Module: **DC 2.1 M5 Problem Solving**

Level: **Intermediate (B3) – On its own and solving straightforward problems.**

Module DC 2.1 M5 Problem Solving Level B3 includes proficiency Level 3 of the DigComp 2.1 framework in the Competence Area 5: Problem Solving.

Competences are verified in the following competence titles:

1. **Solving technical problems.**
To identify technical problems when operating devices and using digital environments, and to solve them (from trouble-shooting to solving more complex problems).
2. **Identifying needs and technological responses.**
To assess needs and to identify, evaluate, select and use digital tools and possible technological responses and to solve them. To adjust and customise digital environments to personal needs (e.g. accessibility).
3. **Creatively using digital technologies.**
To use digital tools and technologies to create knowledge and to innovate processes and products. To engage individually and collectively in cognitive processing to understand and resolve conceptual problems and problem situations in digital environments.
4. **Identifying digital competence gaps.**
To understand where one's own digital competence needs to be improved or updated. To be able to support others with their digital competence development. To seek opportunities for self-development and to keep up-to-date with the digital evolution.

The competence verification is carried out in the following groups:

1. Knowledge (K).
2. Skills (S).
3. Abilities (A).

The scope verified by the ECCC exam of module DC 2.1 M5 (Level B3)

COURSE PURPOSES		LEARNING OUTCOMES			K	S	A
B3_CP1	(5.1) To acquire skills of solving technical problems.	DC2.1_1	Can indicate well-defined and routine technical problems when operating devices and using digital environments.				
		DC2.1_2	Can select well-defined and routine solutions to them.				
		B3_LO1	Knows where to look for solving a problem	✓			
		B3_LO2	Can recognize the basic possible failure of a device or program.		✓		
		B3_LO3	Can recognize basic problems in the operation of programs.		✓		

COURSE PURPOSES		LEARNING OUTCOMES			K	S	A
		B3_LO4	Is able to solve a basic technical problem or to decide what to do when technology does not function		✓		
B3_CP2	(5.2) To acquire skills of identifying needs and technological responses.	DC2.1_3	Can indicate well-defined and routine needs.				
		DC2.1_4	Can select well-define and routine digital tools and possible technological responses to solve those needs.				
		DC2.1_5	Can select well-defined and routine ways to adjust and customise digital environments to personal needs.				
		B3_LO5	Knows the range of things that can be done using technologies.	✓			
		B3_LO6	Can choose the most appropriate technologies according to the problem.		✓		
		B3_LO7	Understands the limitations of e-mail and other forms of digital communication.		✓		
		B3_LO8	Can properly connect and configure headphones, microphone and webcam.		✓		
		B3_LO9	Can check if the device has communication with the network and will take action to restore it.		✓		
B3_CP3	(5.3) To acquire skills of creatively using digital technologies.	DC2.1_6	Can select digital tools and technologies that can be used to create well-defined knowledge and well-defined innovative processes and products.				
		DC2.1_7	Can engage individually and collectively in some cognitive processing to understand and resolve well-defined and routine conceptual problems and problem situations in digital environments.				
		B3_LO10	Is able to build meaningful knowledge through interaction with digitally available resources		✓		
		B3_LO11	Is pro-active in looking for solutions.			✓	
		DigComp 2.1 examples.	Can use a MOOC's forum to ask for well-defined information on the course he/she is following and can use its tools (<i>e.g. blog, wiki</i>) to create a new entry for exchanging more information.		✓		
			Can engage in a collaborative exercise with others using the mind map tool of the MOOC in order to understand a concrete issue in a new way.			✓	
			Can fix problems such as identifying that he/she is introducing a question or comment in the wrong place.		✓		
			Can engage in exercises of the MOOC that use simulations to practice a math problem. Discussing the exercises in chat with others helping to approach the problem differently and improved own skills.				✓
B3_CP4	(5.4) To acquire skills of	DC2.1_8	Can explain where its digital competence needs to be improved or updated.				

COURSE PURPOSES		LEARNING OUTCOMES			K	S	A
identifying digital competence gaps.	DC2.1_9	Can indicate where to seek well-defined opportunities for self-developments and to keep up-to-date with the digital evolution.					
	B3_LO12	Understands where ICT comes from, who develops it and for what purposes.	✓				
	B3_LO13	Knows about the existence of various types of courses and training in the area of specific tools of digital technologies.	✓				
	B3_LO14	Possesses the skills to update knowledge about the availability of digital tools.		✓			
	B3_LO15	Is able to stay informed using a combination of active search and personalised, automated delivery of information		✓			
	B3_LO16	Can prepare a simple course on a given digital technology tool / tools and publish it using other tools.		✓			
	B3_LO17	Is able to broaden/update digital competences according to personal/professional needs					

Practical skills, verified by the ECCC DC2.1 M5 exam, concern:

1. A computer workstation as PC / laptop equipped with a camera, microphone, speakers / headphones, scanner and with Internet access with a minimum bandwidth of 2 Mb/s.
2. Operating system: MS Windows 7 or newer.
3. A tablet (Windows or Android compatible with the device) or smartphone (Android compatible with the device).
4. Microsoft Office 2007 or newer (MS Word, MS Excel, MS Power Point) or Libre Office v.5 or newer..