

Competency framework COMPUTING AND INTERNET CERTIFICATE (C2i)

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DETAILED COMPETENCY FRAMEWORK FOR C2I LEVEL 2 - TEACHER

The competency framework gives, for each domain, a list of the associated competences and a description of the situations in which they are used.

To ensure that teaching staff can readily attain the same understanding of this competency framework, this section begins by presenting the general context in which each competence is used before describing it in terms of skills and knowledge.

This competency framework consists of two specific domains:

— Domain A. General competences related to working as a teacher

- ⤴ A1 Mastering the digital work environment
- ⤴ A2 Development of competences for lifelong learning
- ⤴ A3 Professional responsibility within the context of the education system

— Domain B. Competences required to teach with ICT

- ⤴ B1 Working in networks using collaborative working tools
- ⤴ B2 Design and preparation of teaching content and learning situations
- ⤴ B3 Implementation in teaching
- ⤴ B4 Implementation of assessment processes

DOMAIN A
GENERAL COMPETENCES RELATED TO WORKING AS A TEACHER

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Domain	Competences
A1. Mastering the digital work environment	A11. Identify ICT personnel resources and their respective roles at local, regional and national level
	A12. Adopt the various IT components (locations, tools etc.) available within the work environment
	A13. Select and use the resources and services available within a digital workspace
	A14. Identify and use the most appropriate tools for communicating with the professionals and users within the education system
	A15. Gathering and organising resources, making use of professional sources
A2. Development of competences for lifelong learning	A21. Use online resources or distance learning systems for personal learning
	A22. Refer to research works linking knowledge, learning and ICTE
	A23. Keep up-to-date with pedagogical, organisational and scientific developments via exchange networks relating to the practitioner's particular field, discipline, and teaching level
A3. Professional responsibility within the context of the education system	A31. Adapt how one expresses oneself and communicates to different recipients and different contexts (institutional, public, private, internal, external, etc.)
	A32. Be aware of the issues and comply with the rules concerning, for instance: searching for and criteria for checking the validity of information; IT security; internet filtering.
	A33. Being aware of the legislation and requirements concerning professional use of ICTE, particularly with respect to: Protection of individual and public freedoms, personal safety, child protection, data confidentiality, intellectual property, image rights.
	A34. Comply, and ensure compliance by others, with the establishment's usage agreement(s), including the educational aspect of citizenship

The massive penetration of ICT into every area of social and working life means that the methods used by teachers in their work have changed significantly.

Although these changes sometimes result simply in a transfer into teaching situations of the knowledge and expertise that already form part of a teacher's competences, more frequently it is the very context in which a teacher operates that has changed substantially, to the point that the process of acquiring new competences is justified; this is due to the specific nature of the applications that use ICT to convey and share information.

This denotes a new educational responsibility concerning the means of communication and the appropriation of information and knowledge that extend well beyond the classroom context.

A1. MASTERING THE DIGITAL WORK ENVIRONMENT

The competences in this area concern the minimum knowledge required by any teacher in order to apply ICT to every aspect of working practice, whether administrative or pedagogical.

Involving knowledge of both the human and systems aspects of the working environment, these facilitate obtaining employment for teachers.

The aim of the first group of competences is an understanding of and familiarity with the environments in which the teacher operates, on both a technical level (what is available to me?) and a human level (who can I use?).

The latter two competences aim to achieve effective and well thought-out communication with all participants in the education community (line management, parents, pupils, etc.) and effective use of professional resources.

These abilities to understand and use environments and resources should enable teachers to adapt to the changes they will face, whether these result from a change of job or from technological or organisational change.

A2. DEVELOPMENT OF COMPETENCES FOR LIFELONG LEARNING

This domain illustrates the professional aspect of the C2i level 2 "teacher" framework in which the acquisition of competences is not restricted to a training period.

The potential of educational technologies and the development of networks facilitate the establishment of open and distance learning in higher education as well as in schools.

As with any adult learning, teachers are required to pursue their learning independently, making use of research, scientific and didactic works, and of resources generated by institutional networks and discipline-based or pedagogical communities.

A3. PROFESSIONAL RESPONSIBILITY WITHIN THE CONTEXT OF THE EDUCATION SYSTEM

Professional responsibility within the context of the education system is a major issue in the development of a teacher's professionalism. This takes on a new aspect with the arrival of networks, which considerably increase the risks related to a teacher's work and even more considerably the risks run by pupils. It is therefore vital that teachers are trained in this area, both on their own account and so that they can educate the pupils who will enter the information society.

This responsibility must be exercised just as much in interpersonal communications as on internet sites (websites, blogs, etc.).

DOMAIN B
COMPETENCES REQUIRED TO TEACH WITH ICT

Domain	Competences
B1. Working in networks using collaborative working tools	B1.1. Search for, produce, index, share and pool documents, information and resources in a digital environment
	B1.2. Contribute to a piece of work or a joint project within disciplinary, interdisciplinary, cross-cutting or educational teams
	B1.3. Organise, co-ordinate and lead work carried out by a network in disciplinary, interdisciplinary, cross-cutting or educational teams
B2. Design, preparation, analysis and assessment of teaching content	B2.1. Identify learning situations appropriate to the use of ICTE
	B2.2. Design learning and assessment situations using general software or software specific to the discipline, field or level of education
	B2.3. Design learning and assessment situations implementing approaches for researching information
	B2.4 Prepare resources appropriate to the various types of learner and teaching situations, choosing between the formats and media available and observing the rules for communication
	B2.5. Design learning situations or systems introducing distance learning components

B3. Implementation in teaching	B3.1. Lead a range of learning situations, taking advantage of the potential of ICT (class work, individual work, work in small groups)
	B3.2. Manage the alternation between activities that use ICTE and those that do not
	B3.3. Manage the different times and methods of working, face-to-face and/or distance, in order to take into consideration the diversity of pupils, students or trainees
	B3.4. Use ICTE to support and tutor pupils, students or trainees in carrying out their work, their projects, their research
	B3.5. Anticipate a technical problem or know how to deal with it
B4. Implementation of assessment processes	B4.1. Identify the ICT framework competences (B2i®, C2i®) implemented in a learning situation presented to pupils, students or trainees
	B4.2. Participate in a group process for assessing ICT competences (B2i® or C2i®)
	B4.3. Use tools for evaluating and monitoring learning

Although ICT constitutes a huge new field of knowledge and competences within teaching, from school to university, it does not, except in certain instances, constitute an additional discipline.

Pupils and students have to take these up via a range of activities that make use of this knowledge and competences in the different disciplines.

From the teachers' perspective, they thus acquire the status of ICTE: from purely technological teaching to incorporation into pedagogic practices, the nettle must be grasped so that ICT becomes cross-cutting and of use in particular activities of daily life; here in learning activities which, although primarily subject-related, nevertheless have broad educational reach.

The development of new pedagogical practices will enable pupils to acquire the competences specified in the B2i framework specifications at the same time as an understanding of the uses geared towards individual learning and responsibility in social relationships, and will enable students to acquire the competences needed to pursue their studies.

B1. WORKING IN NETWORKS USING COLLABORATIVE WORKING TOOLS

The new practices resulting from the introduction of networks into all working contexts for teachers encourage the development of new forms of mediation, support, organisation, working, task management, regulation, assessment and learning.

Introducing into courses these methods of collaborative working via networks and IT tools is justified by the need to train the citizens of the future who, in their personal and working lives, will need to be familiar with these tools and these approaches of working in networks, which are widespread in every sector of activity.

In their classes teachers must therefore set up situations for collaborative working and learning.

In their own work they too must now work in networks, with their colleagues and, more broadly, with the school or organisation's participants and partners.

B2. DESIGN, PREPARATION, ANALYSIS AND ASSESSMENT OF TEACHING CONTENT

One major thrust in teacher training is the development of thinking about teaching and learning based upon the programmes of study and particular features of the disciplines. The use of ICTE must now be incorporated into this and given considerable emphasis. It involves being aware of the diverse range of tools, assessing the relevance of use of these tools, and considering the various contributions they make to learning.

This use must be considered both in traditional teaching situations as well as in innovative methods: an individualised approach to learning, class work, group communication, ways of extending learning outside the classroom, etc.

B3. IMPLEMENTATION IN TEACHING

The use of ICTE in teaching goes to the very heart of the profession. It assumes a diversification of learning formats; it incorporates and gives meaning to the other areas of competence.

In most cases, it involves application in the classroom but may concern other working situations involving pupils. Implementation ranges from the situation of use by the whole class under the teacher's supervision with the aid of a video projection system or interactive whiteboard, to situations in which the pupils are "in charge": IT room, classroom computers, workshops, schools' own digital platforms, etc.

The relevance of the types of use is assessed not only on the contribution made to disciplinary and cross-cutting knowledge but also on the support given to pupils and students towards daily use of digital technologies.

The competences in the area are used in the actual activity. Currently, this usually means face-to-face teaching. In future, distance-based activities will develop and form a valuable arena in which to apply these competences.

B4. IMPLEMENTATION OF ASSESSMENT PROCESSES

Although all teachers must possess competences for assessment within their own discipline(s), there are some specific fields for using these competences which are not discipline-related and concern every teacher.

In the current definition given to them, these concern assessments of the use of ICT with the B2i and C2i frameworks.

Knowledge of these various forms of assessment, their actual application, and knowledge of the ICT tools that can be used in assessment must form part of teachers' professional approach.