

Technology for Learning and knowledge (TLK)

Code: 101656
ECTS Credits: 6

Degree	Type	Year	Semester
2500260 Social Education	OT	3	2
2500260 Social Education	OT	4	1
2500261 Education Studies	OT	4	1
2500797 Early Childhood Education	OT	4	1
2500798 Primary Education	OT	4	1

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Other comments on languages

Catalan and Spanish can be used as see fit by teachers and students

Prerequisites

To have an intermediate level of digital competence (level 4 of DigComp) to be able to adequately follow the subject is recommended.

To bring an electronic device to develop the classes (laptop or tablet) is recommended.

Objectives and Contextualisation

Purposes:

- Provide a learning environment that encourages participation and takes decision-making by students.
- Promote the use of digital resources in teaching and learning situations, based on the educational decisions
- Develop Educator's Digital Competence

Objectives:

- Reflect on the concepts of Educational Technology and its social and educational impact.
- Provide a broad view of the possibilities of use of digital technologies in the context of formal and non-formal education and in the work.

- Analyze, evaluate and design technological resources for education
- Develop projects that integrate the use of digital technologies in different educational contexts.

Competences

Social Education

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Use ICT to learn, communicate and collaborate in educational contexts.

Education Studies

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Incorporate information and communications technology to learn, communicate and share in educational contexts.
- Introduce changes in the methods and processes of the field of knowledge to provide innovative responses to the needs and demands of society.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.

Early Childhood Education

- Incorporate information and communications technology to learn, communicate and share in educational contexts.
- Know about international experiences and examples of innovative practices in infant education.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.

Primary Education

- Incorporate information and communications technology to learn, communicate and share in educational contexts.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Critically analyse and incorporate the most relevant issues of today's society affecting education: social and educational impact of audiovisual languages and screens.
3. Demonstrate an understanding of the evolution of the educational implications of information and communications technologies to learn about and apply the same to the classroom.
4. Demonstrate an understanding of the evolution of the educational implications of the information and communications technology to know them and apply them in the classroom.
5. Propose new experience-based methods or alternative solutions.
6. Propose new methods or well-founded alternative solutions.
7. Propose new ways to measure the success or failure of the implementation of innovative proposals or ideas.
8. Propose projects and actions that are in accordance with the principles of ethical responsibility and respect for fundamental rights and obligations, diversity and democratic values.
9. Propose projects and actions that incorporate the gender perspective.
10. Understand and apply effective and efficient innovative experiences to facilitate learning processes and knowledge construction among pupils.

Content

1. Digital technologies as a teaching learning mean.

1.1. Different approaches about educational technology. Technical and critical view. Contributions of digital technologies.

1.2. New roles of teachers, learners, family and social context.

2. Digital Competence of Students and Educators.

2.1. Learning and knowledge building with digital technologies.

2.2. Implications of innovative education. New challenges and opportunities to improve education.

3. Design, development and evaluation of educational proposes that integrate digital technologies as mean for teaching and learning.

3.1. Analysis, assessment and creation of digital resources.

3.2. Policies and projects that promote educational improvement and change with the integration of digital technologies.

Methodology

The activities planned for the treatment of the contents include lectures, seminars, laboratories, workshops and tutorials as well as activities considered autonomous work (readings and practices).

Some activities that will be develop in class and autonomously are:

- Reading and discussion of the main concepts and, eventually, presentation of the teaching staff of critical aspects of the subject matter
- Provision of resources provided both by teachers as per the student. In some cases suggests its public presentation of some activities,
- Individual development of the learning portfolio by the student with strong component of self-reflective practice (autonomous work)
- Practice oriented group. Activity directed face-to-face with orientation in class and eventually out of it in tutoring.
- Digital resources creation for forman and informal learning environments.
- Self and peer assessment activities.

In this subject a class attendance of at least 80% is recommended.

The teaching methodology and the evaluation of proposals may undergo some modification depending on the restrictions to the attendance imposing by the government.

15 minutes of one of the last classes will be used for students to answer the teaching assessment and subject assessment survey.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			

Lectures	15	0.6	2, 10, 3
Seminars	28	1.12	2, 1, 3, 6
Type: Supervised			
Tutoring and mentoring	15	0.6	2, 1, 10, 3, 6, 7, 8, 9
Type: Autonomous			
Creation of innovation project	17	0.68	1, 10, 6, 7, 8, 9
Finishing peer-feedback activity	2	0.08	2, 1, 6
Work on learning portfolio	25	1	2, 1, 10, 3

Assessment

The student could be assessed only if they accomplish the participation and attendance percentage (80%). The student who arrives late or leaves early (before developed 2h of class) systematically, won't achieve the minimum of attendance and participation and, therefore, could not be assessed.

The evaluation consists of three activities:

Activity 1: Digital learning portfolio (individual), to be developed during the course of the subject in order to guide the learning process. It requires continuous work from the beginning until the end of the course. The portfolio must include: class notes, reflections, schemes, summaries, audiovisual resources and hipertextual resrouces, the activities developed during the subject that th students think that demonstrate their competential development, as well as additional material that students find complementary. Final delivery: 20th January 2023.

Activity 2: Peer-feedback task of the digital learning portfolio. On 18th of november, students must present the state of their learning portfolio to be assessed by a peer. The assessment received by a peer won't be included in their final mark. The assessment made to another peer will be evaluated by the teacher and will be the mark to include in the 15% of the final mark. It is required that the student has their learning portfolio up to date in order to participate in the activity. Otherwise, the student won't participate in this activity and will have a 0, therefore, only being able to achieve a 8.5 as a subject grade. The students who won't attend for medical reasons (certified) will be offered an alternative solution. Date of the activity: 18th of november. Date of delivery: 25th of november.

Activity 3: Design of a group project. Creation of an educational proposal that integrates digital technology. The project will be developed, mainly, during the class sessions but it will also be necessary autonomous work outside the class. The project must integrate the fundamental and pertinent contents worked in the subject, as well as the creation of 3 digital resources. Date of delivery: 3rd of February 2023.

Activities 1 and 3 must be pass with a gradeof, at least, 5 out of 10 points. In case of not passing activities 1 and/or 3 with a grade higher than 3.5, the student will be able to reevaluate on 10th of february 2023.

To pass this subject, it is necessary for the student to also show good general communicative competence, both orally and in writing (Spanish or Catalan). In all activities (individual and group), therefore, linguistic correction, writing and formal aspects of presentation will be considered. Students must be able to express themselves fluently and correctly and must show a high degree of understanding of academic texts. An activity can be returned (not evaluated) or suspended if the teacher considers that it does not meet these requirements.

Copying or plagiarism will be penalized with a 0 as a grade for the subject, losing the possibility of reassessing it, whether it is an individual or group work (in this case, all members of the group will have a 0). If during the performance of an individual work in class, the teacher considers that a student is trying to copy or some type of document or device not authorized by the teacher is discovered, it will be scored with a 0, with no option

recovery, and therefore, the subject will have failed. A work, activity or exam is considered to be "copied" when it reproduces all or a significant part of the work of one / another colleague. A work or activity will be considered "plagiarized" when a part of an author's text is presented as one's own without citing the sources, regardless of whether the original sources are on paper or in digital format.

The proposed teaching methodology and assessment may undergo some modification depending on the attendance restrictions imposed by the health authorities.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Group project	35%	15	0.6	2, 10, 6, 9
Learning Portfolio	50%	30	1.2	2, 1, 10, 3, 4, 6, 7, 8
Peer-feedback of the Portfolio	15%	3	0.12	1, 10, 6, 5

Bibliography

Basic Bibliography

Adell, J. y Castañeda, L. (2010). Los entornos personales de aprendizaje: una nueva manera de entender el aprendizaje. En Roig Vila, R. y Fiorucci, M. (Eds) *Claves para la investigación en innovación y calidad educativas. La integración de las Tecnologías de la Información y la Comunicación y la Interculturalidad educativas*. Alcoy: Marfil - Roma TRE Università degli Studi.

Allueva y Alejandro (coords.) (2021). *Acciones de innovación educativa en entornos enriquecidos con tecnologías del aprendizaje y la comunicación*. Presses de la Universidad de Zaragoza. ISBN 978-84-1340-310-6

Area, M. & Adell, J. (2009). E-learning: enseñar y aprender en espacios virtuales. En DE PABLOS, J. (Coord.) *Tecnología Educativa. La formación del profesorado en la era de Internet*. Málaga: Ediciones Aljibe. Pp.391-424.

AlFarah, M. & Bosco, A. (2018). Los Usos de Facebook y WhatsApp en la Reconstrucción de la Educación en Zonas Afectadas por Conflictos Armados: El Caso de Siria. *REICE: Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 16(4), 45-62. URL: <https://revistas.uam.es/index.php/reice/article/view/9956/10063>

Aparici, R. & Silva M. (2012). Pedagogía de la interactividad. *Comunicar*, 38 (19), 51-58. URL: <https://www.revistacomunicar.com/>

Cepeda Romero, O.; Gallardo Fernández, I.M. & Rodríguez J. (2016). La evaluación de los materiales didácticos digitales. *Revista Latinoamericana de Tecnología Educativa RELATEC*, 16 (2), 79-95. URL: <https://relatec.unex.es/article/view/3055>

Fariña, E.; González, C.S. & Area, M. (2013). ¿Qué herramientas utiliza el profesorado universitario en el campus virtual? *RED, Revista de Educación a Distancia*, 35. URL: <https://www.um.es/ead/red/35/>

Fernández Alex, M. D. (2016). Modelo Educativo emergente en las buenas prácticas TIC, *Revista Fuentes*, 18(1), 33-47. URL: <https://revistascientificas.us.es/index.php/fuentes/article/view/2813>

Hrastinski, S (Ed). (2021). *Designing Courses with Digital Technologies Insights and Examples from Higher Education*. ISBN: 9780367700003

Gisbert Cervera, M.; González Martínez, J. & Esteve Mon, F. (2016). Competencia digital y competencia digital docente: una panorámica sobre el estado de la cuestión. *Revista Interuniversitaria de Investigación en Tecnología Educativa (RIITE)*, 0, 74-83. URL: <https://revistas.um.es/riite/article/view/257631>

Lazaro, J.L. y Gisbert, M. (2020). *De las aulas a los espacios globales para el aprendizaje*. Octaedro. ISBN: 9788418348273

McCartney, K. (2021). *Mobile Education: Personalised Learning and Assessment in Remote Education: A Guide for Educators and Learners (Digital Learning and the Future)*. ISBN. 978-1789979459.

Mercader, C. & Duran-Bellonch, M. (2021). Female higher education teachers use digital technologies more and better than they think. *Digital Education Review*, 40, 172-184. URL: <https://bit.ly/techandgender>

Complementary Bibliography

Cobo Romani, C. & Pardo Kuklinski, H. (2009). *Un esbozo de ideas críticas sobre la Web 2.0. En Planeta web 2.0. Inteligencia colectiva o medios "fast food"*. URL: <https://www.ecuaderno.com/2007/09/10/libro-planeta-web-20/>

Gewerc Barujel, A. (2009). *Políticas, prácticas e investigación en Tecnología Educativa*. Barcelona: Ediciones Octaedro

Gewerc, A., Montero, L. & Lama, M. (2014). Colaboración y redes sociales en la enseñanza universitaria. *Comunicar*, 42(19), 55-63. <https://www.revistacomunicar.com/>

Sánchez-Montero, M. (2021). *En clase sí se juega: Una guía práctica para crear tus propios juegos en el aula*. ISBN-10 8449338476

Sancho, J. M. (2008). De TIC a TAC, el difícil tránsito de un vocal. *Investigación en la escuela*, 64, 19-30. URL: <https://revistascientificas.us.es/index.php/IE/article/view/7165>

Valverde, J. (2014). MOOCs: una visión crítica desde las Ciencias de la Educación. *Profesorado. Revista de Currículum y formación del profesorado*, 18(1), 93-111. URL: <http://www.ugr.es/~recfpro/rev181ART6.pdf>

Villalustre Martínez, L. y Del Moral Pérez, E. (2015). Gamificación: Estrategia para optimizar el proceso de aprendizaje y la adquisición de competencias en contextos universitarios. *Digital Education Review*, 27, 13-31. URL: <https://revistes.ub.edu/index.php/der/article/viewFile/11591/pdf>

Software

Blogger

Canva

Genially

Google drive

H5p

LearnLab

Mblock

Mentimeter

Moodle

Mural

Padlet

Quizizz

Powtoon

Scratch

Tinkercad