

**COURSE DATA****DATA SUBJECT**

Code: 46947
Name: Assistive Technologies
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2276 - Master's Degree in Special Education	Facultat de Filosofia i Ciències de l'Educació	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2276 - Master's Degree in Special Education	TIC y Discapacidad	ELECTIVES

COORDINATION

DIAZ HINAREJOS SOFIA

SUMMARY

The course **Assistive Technologies** aims to provide students with an up-to-date understanding of technological resources designed to support the education of learners with functional disabilities, language acquisition difficulties, or hearing impairments.

To this end, the course reviews and analyses the main digital tools and specialized software developed to support intervention in difficulties related to the acquisition, comprehension, and expression of spoken and written language, as well as speech, voice, and hearing disorders.

In addition, the course examines a range of assistive technologies and support products that facilitate access to communication and learning. Particular emphasis is placed on **Augmentative and Alternative Communication (AAC) systems**, exploring their theoretical foundations, educational applications, and criteria for selection and implementation in inclusive educational settings.

Overall, the course seeks to equip students with the knowledge and skills required to identify, select, adapt, and implement technological resources and assistive devices that promote participation, autonomy, and educational inclusion for learners with specific educational support needs.

This course will focus on fostering an understanding of the regulatory framework and the fundamental principles of Organic Law 10/2022, dated September 6, on the comprehensive guarantee of sexual freedom. It will cover topics related to equality and a gender perspective, and will address strategies for the prevention, awareness-raising, and detection of sexual violence in educational settings, while integrating



teaching practices aimed at preventing and detecting sexual violence, in coordination with the institutional resources and protocols established by the UV.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

No specific prerequisites are required for this course. However, students are expected to have a basic understanding of inclusive education, special educational needs, and diversity support, as well as basic digital skills that will facilitate the use and evaluation of technology-based educational resources.

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COMPETENCES / LEARNING OUTCOMES

2276 - Master's Degree in Special Education

Apply knowledge and problem-solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to special education.

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Demonstrate critical and self-critical reasoning in the field of special education, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Design and manage assessment and intervention procedures in the field of specific educational support needs.

Have an active commitment to non-discrimination, equal opportunities and equity.

Know and understand the procedures for research, assessment and intervention in the school environment for children with specific educational support needs.

Know the contributions of assistive technologies, authoring programmes and alternative and/or augmentative communication systems.

Search for, manage and analyse scientific-professional information, technical reports, research and/or evaluation reports on educational actions, processes and results.

DESCRIPTION OF CONTENTS



1. Introduction at the techs of aid.

Techs of aid. Concept and classification. The technical aids at the personal and social development of the person with disability. Concepts related. Catalogues of technical aids.

2. Accessibility at the physical environment.

Accessibility at the physical environment. Products of support for the daily life. Products of support for the personal mobility. Technical aids for the leisure and free time. Technical aids for the manipulation and control of the environment. Alternative systems and augmentatives of fit at the information of the environment.

3. Fit at the digital information.

Society of the information: exclusion and digital gap. Rule on universal accessibility. Accessibility web: design for all. Guidelines of accessibility. Technical aids for the fit at the computer. Resources of the system. Products of support for pupils with automotive disability. Technical aids for persons with visual disability: tiflotechnology. Technical aids for pupils with auditory disability.

4. Systems augmentatives and Alternative of Communication

SAAC: Concept and classification. Users of SAAC. SAAC without Aid: fundamental characteristics. SAAC with aid: characteristics. Supports for SAAC with aid: typology. Selection of a SAAC. Oral language and SAAC. Initial learning. Selection of the vocabulary. Strategies of education. Spontaneous language. Generalization of the learnings. Extension of vocabulary. Building of sentences. Abilities of conversation.

5. Techs for the (re)habilitation and the learning.

Techs for the stimulation sensory motor. Techs for the rehabilitation of the language and the speech. Techs for the education and learning of instrumental areas. Techs for the tablets.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theoretical and practical classes	30,00
Total hours	30,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
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Attendance at other activities	0,00
Individual or group project	30,00
Independent study and work	10,00
Preparation of lessons	0,00
Preparation for assessment activities	14,00
Resolution of case studies	0,00
Total hours	54,00

TEACHING METHODOLOGY

Participatory masterly lesson

- Work at specific classrooms
- Learning based at problems
- Tutorial Academic
- Work at band and cooperative
- Exposure, debate and coordination

EVALUATION

The appraisal of the subject will consider the following areas:

Delivery of individual works on the contents of each motif: 40%

Delivery of works groups on the contents of each motif: 40%

Self-evaluation individual: 10%

Supervision of the work individual and graupel at the sessions: 10%

REFERENCES

- Basic references
- Beukelman, D. R., & Light, J. C. (2020). Augmentative and alternative communication: Supporting children and adults with complex communication needs (5th ed.). Paul H. Brookes Publishing.
- CAST. (2024). Universal Design for Learning Guidelines 3.0. CAST.
- Cook, A. M., & Polgar, J. M. (2023). Assistive technologies: Principles and practice (6th ed.). Elsevier.
- Florian, L. (Ed.). (2024). The SAGE handbook of special education (3rd ed.). Sage.
- Forlin, C., & Chambers, D. (Eds.). (2022). The Routledge handbook of inclusive education for teacher educators. Routledge.
- Soto Pérez, F. J., & Rodríguez Vázquez, J. (Coords.). (2016). Tecnología, innovación e investigación en los procesos de enseñanza-aprendizaje. Consejería de Educación, Formación y Empleo de la Región de Murcia.
- World Health Organization, & UNICEF. (2022). Global report on assistive technology. World



Health Organization.

Supplementary references

- Aguado Díaz, A. L. (2019). Tecnologías de apoyo y accesibilidad para la inclusión. Síntesis.
- Dell, A. G., Newton, D. A., & Petroff, J. G. (2017). Assistive technology in the classroom: Enhancing the school experiences of students with disabilities (3rd ed.). Pearson.
- European Agency for Special Needs and Inclusive Education. (2022). Supporting inclusive school leadership. Author.
- International Society for Technology in Education. (2024). ISTE standards for educators. ISTE.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). Universal design for learning: Theory and practice. CAST Professional Publishing.
- Passey, D. (2021). Inclusive technology enhanced learning. Routledge.