

**COURSE DATA****DATA SUBJECT****Code:** 44505**Name:** Intervention in mathematical learning difficulties**Cycle:** Master's Degree**ECTS Credits:** 2.5**Academic year:** 2026-27**STUDY (S)**

| Degree                                      | Center                                         | Acad. year | Period        |
|---------------------------------------------|------------------------------------------------|------------|---------------|
| 2215 - Master's Degree in Special Education | Facultat de Filosofia i Ciències de l'Educació | 1          | First quarter |

**SUBJECT-MATTER**

| Degree                                      | Subject-matter                                                                     | Character  |
|---------------------------------------------|------------------------------------------------------------------------------------|------------|
| 2215 - Master's Degree in Special Education | Counselling and intervention in learning disabilities and behavioural difficulties | COMPULSORY |

**COORDINATION**

VARGAS PECINO CRISTINA

**SUMMARY**

Non available

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

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

**OTHER REQUIREMENTS****COMPETENCES / LEARNING OUTCOMES****2215 - Master's Degree in Special Education**

Buscar, gestionar y analizar información científico-profesional



- Conocer las manifestaciones de los diferentes tipos de dificultades en la autorregulación y el aprendizaje
- Conocer los fundamentos, principios, valores y actitudes que sustentan el derecho a la educación del alumnado con necesidades específicas de apoyo educativo
- Conocer los principios éticos de la actuación profesional en el ámbito de la atención a las necesidades específicas de apoyo educativo
- Conocer y analizar los programas que oferta la administración educativa
- Conocer y comprender procesos de investigación en el ámbito de las necesidades específicas de apoyo educativo y social
- Diseñar y aplicar procedimientos de investigación en el ámbito de las necesidades específicas de apoyo educativo y social
- Diseñar y gestionar procedimientos de intervención en el ámbito de las necesidades específicas de apoyo educativo
- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.
- Students should demonstrate self-directed learning skills for continued academic growth.

## DESCRIPTION OF CONTENTS

### **1. Basic characteristics of mathematical learning difficulties.**

Basic characteristics of mathematical learning difficulties.  
Cognitive and neurobiological factors that are involved.  
Development of mathematical skills.

### **2. Detection, diagnosis and assessment of mathematical learning difficulties.**

Detection and recognition of warning signs.  
Diagnostic criteria, assessment methods and measuring instruments.  
Subtypes classification.



### 3. Intervention in mathematical learning difficulties

Principles of Effective Interventions and instructional methods.

Empirically supported intervention programmes.

Intervention activities and teaching materials (manipulative, computer games, and pencil and paper materials).

#### WORKLOAD

##### PRESENCIAL ACTIVITIES

| Activity                          | Hours        |
|-----------------------------------|--------------|
| Theoretical and practical classes | 17,50        |
| <b>Total hours</b>                | <b>17,50</b> |

##### NON PRESENCIAL ACTIVITIES

| Activity                              | Hours        |
|---------------------------------------|--------------|
| Attendance at other activities        | 0,00         |
| Individual or group project           | 15,00        |
| Independent study and work            | 20,00        |
| Preparation of lessons                | 0,00         |
| Preparation for assessment activities | 0,00         |
| Resolution of case studies            | 10,00        |
| <b>Total hours</b>                    | <b>45,00</b> |

#### TEACHING METHODOLOGY

Non available

#### EVALUATION

In the evaluation of the acquisition of the competences by the students, a combination of different types of information will be made, linked to the different activities that the students develop. Therefore, the evaluation procedures will contemplate:

a) Exam. There will be an examination of objective questions with multiple answers and / or development that will consist in the realization of a written test. This test will have a weight of 60% in the final grade, in addition you must reach a minimum of 50% mastery to pass the course. This requirement is recoverable in second call.

b) Classroom activities. Preparatory activities and developed in the face-to-face sessions. A minimum of 50% must be reached in these activities and will have a weight of 15% in the final grade. In case of non-



compliance with this requirement in the first call, the student must complete and pass on the second call an additional evaluation test on the skills worked on in the classroom activities.

c) Compulsory group work. Mandatory group work includes a written report and/or a class presentation. This group work will have a weight of 25% in the final grade. Failure to meet this requirement will not be recoverable on second call, so that those students who have not done so in the first call will have a final maximum score of 7,5 points on second call.

If in the first call no part of the evaluation is exceeded, the grades obtained in the sections already passed for the second call will be retained.

The face-to-face nature of the master's degree requires attendance at classes. As a result, the fulfillment of certain tasks developed in person in the classroom may be required as requirements to overcome the subject.

Fraudulent conduct in assessment tests and plagiarism in assessment work will be considered in accordance with the UV Assessment and Grading Regulations (ACGUV 108/2017) and the Protocol for Action against Fraudulent Practices (ACGUV 123/2020).

The use of technologies (including AI) to create assessment materials without prior and express authorization from the teaching staff will prevent them from being considered as self-authored and will be treated according to current regulations and the UV Code of Coexistence and Good Practices (ACGUV 300/2023, DOGV, no. 9747/18.12.2023).

## REFERENCES

- De León, S. C. y Jiménez, J. E. (2019a). Modelo de respuesta a la intervención y matemáticas: estrategias instruccionales basadas en la evidencia científica. En J. E. Jiménez (Ed.), *Modelo de Respuesta a la Intervención. Un enfoque preventivo para el abordaje de las dificultades específicas de aprendizaje* (pp. 291-348). Ediciones Pirámide.
- De León, S. C. y Jiménez, J. E. (2019b). Modelo de respuesta a la intervención y matemáticas: principales habilidades y detección temprana. En J. E. Jiménez (Ed), *Modelo de Respuesta a la Intervención. Un enfoque preventivo para el abordaje de las dificultades específicas de aprendizaje* (pp. 249-389). Ediciones Pirámide.
- Defior, S., Serrano, F. y Gutiérrez, N. (2015). *Dificultades específicas del aprendizaje*. Editorial Síntesis.
- Karagiannakis, G., Baccaglini-Frank, A. y Papadatos, Y. (2014). Mathematical learning difficulties subtypes classification. *Frontiers in Human Neuroscience*, 8. <https://doi.org/10.3389/fnhum>.



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- Miranda, A., Fortes, C. y Gil, M. D. (1998). Dificultades de aprendizaje de las matemáticas: un enfoque evolutivo. Aljibe.
- Roca Ruíz, J. y Vargas Pecino, C. (2018). Alumnado con trastorno Específico del Aprendizaje. En D. Marín Suelves e I. Fajardo Bravo (Eds.), Intervención Psicoeducativa en alumnado con Necesidades Específicas de Apoyo Educativo (pp. 83-113). Tirant Lo Blanch.
- Soriano, M. (2014). Dificultades de Aprendizaje. GEU.