

**Mathematical Games and Activities in Early
Childhood Education**

Code: 101985
ECTS Credits: 6

| Degree | Type | Year | Semester |
|-----------------------------------|------|------|----------|
| 2500797 Early Childhood Education | OT | 4 | 2 |

Contact

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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

Prerequisites

It is highly recommended that the student have studied and use the knowledge of these subjects

- The mathematics curriculum in kindergarten.
- Practice math classroom Childhood Education

Objectives and Contextualisation

It is an optional subject in the fourth year is focused on a specific teaching. Taught when students have already done all the basic training and then race "Mathematics curriculum the child" and "The mathematical practice in the classroom Childhood Education." That is why the subject: Games and activities in math education child wants to deepen the knowledge of teaching mathematics in kindergarten and primary school.

This course focuses on practical knowledge of math curriculum nursery and primary school, but also will review different mathematical content of older ages. The dynamic classroom will be in workshop format where you live in first person which is the 'mathematical challenge', learning from open questions, cooperative work and aprenentatge from selected materials handling.

Competences

- Consider classroom practical work to innovate and improve teaching.
- Demonstrate knowledge and understanding of the aims, curricular contents and criteria of evaluation of Infant Education
- Design and regulate learning spaces in diverse contexts which attend to the particular issues of pupils regarding gender equality, equity and respect for human rights.
- Promote and facilitate early infant learning, from a global and integrative perspective of different cognitive, emotional, psychomotor and developmental dimensions.
- Promoting experiences of initiation into information and communication technologies.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.
- Understand mathematics as sociocultural knowledge.

- Understand teaching strategies to develop numerical representations and spatial geometric and logical development notions,.
- Understand the scientific, mathematical and technological bases of the curriculum at this stage as well as theories on the acquisition and development of the corresponding learning.
- Work in teams and with teams (in the same field or interdisciplinary).

Learning Outcomes

1. Apply key elements of the mathematics curriculum to a personal design.
2. Be able to analyse a learning situation, assess its relevance and make innovative alternative proposals.
3. Be able to design personal teaching situations based on the curriculum and theoretical guidelines and examples shown in the subject for the teaching and learning of mathematics in infant education.
4. Be able to draw on best mathematical practices to create new and personal ones.
5. Be able to identify mathematical aspects in everyday life and be able to potentiate them and share them with children to facilitate their learning.
6. Be able to include attention to diversity, gender equality, equity and respect for human rights in one's own design.
7. Be able to organize both personal and group work to design and implement a joint project.
8. Know about didactic situations and experiences that are created with a global and inclusive perspective of different cognitive, emotional, psychomotor and volitional dimensions.
9. Propose viable projects and actions to boost social, economic and environmental benefits.
10. Understand learning and teaching theory as governed by the mathematics curriculum.
11. Understand the diversity of educational situations designed around the mathematics curriculum.
12. Understand the diversity of interdisciplinary teaching situations for teaching and learning of mathematics in kindergarten.
13. Using technologies in the design of didactic proposals for teaching and learning mathematics in nursery school or the initial cycle of primary school.

Content

1. Game and fun activity
2. Early childhood games and his relationship with mathematics.
3. Learning math through play.
4. Mathematical programming adapting to the group.
5. Review of mathematical concepts from different blocks and different ages.
6. Creativity and rigor in the design and application of a session in a game and mathematics workshop in early childhood education.

Methodology

The methodology of this course is in a workshop format. You will learn 'doing'. Each session will focus on the manipulation of various teaching materials. Autonomous work, creativity and cooperative work will be promoted. Thou must reflect and also the most relevant record in writing of each session.

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 | | | |
| Large group | 45 | 1.8 | 11 |

Type: Supervised

| | | | |
|---|----|-----|----|
| Analysis of materials and classroom experiences | 30 | 1.2 | |
| Type: Autonomous | | | |
| Autonomous activity | 75 | 3 | 11 |

Assessment

There will be an individual evaluation part and a group evaluation part.

The individual consists of a diary of each session plus the extensions that the student considers. Diary to keep up to date.

This diary will be read by the teacher a couple of times throughout the course (each student on different dates) and can always be redone and improved until the date of the final delivery. The work group consists of preparing and carrying out a session of the game workshop and playful activity for boys and girls in early childhood education, each group on a different date.

Class attendance is mandatory: students must attend all classes to be evaluated (maximum 20% contemplates incidents), otherwise it will be considered absent. Also considered absent the student who has not delivered all evaluation activities within the established deadlines.

The evaluation, therefore, is continuous. The final individual document must be delivered on June 23. The reevaluation will be done on Friday, June 30. Whoever does not present the complete document on this date and/or does not participate in the collective work will be considered not presented. To pass this subject, it is necessary to show, in the activities that are proposed, a good general communicative competence, both orally and in writing, and a good command of the vehicular language that appears in the teaching guide.

In case of plagiarism the course is suspended. The teaching methodology and the evaluation may undergo modifications depending on the restrictions imposed by the health authorities.

Assessment Activities

| Title | Weighting | Hours | ECTS | Learning Outcomes |
|---|-----------|-------|------|--|
| Design and implementation of a workshop session | 30 | 0 | 0 | 1, 2, 5, 6, 4, 7, 3, 11, 12, 10, 8, 13 |
| Individual work. Journal sessions | 50 | 0 | 0 | 5, 6, 3, 11, 12, 10, 8, 13 |
| Self evaluation | 20 | 0 | 0 | 2, 7, 11, 12, 10, 8, 9, 13 |

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Software

There is no need