

Titulació, impartició i nombre de crèdits:

Mestre Especialitat Llengua Estrangera, troncal, 2n semestre, 1er curs, 3 crèdits

Departament: Didàctica de la Matemàtica i de les Ciències Experimentals

Professors: Mariona Espinet

1. Objectius d'aprenentatge de l'assignatura

- a) To become acquainted with basic ideas and English speaking literature in the field of Didactics of Science in primary education
- b) To know, value and analyze some classroom resources, activities, textbooks and science projects related to science teaching in primary school
- c) To develop a positive attitude towards teaching and learning science through direct experience with phenomena
- d) To develop English reading, speaking and writing competences

2. Blocs temàtics i organització dels continguts

1. What Science should we Teach in Primary Education?
 - What is science?
 - The goals of science education
 - What school science should we teach?
2. Learning Science in Primary Education
 - Children's alternative conceptions. What characteristics do they have? Where are they coming from?
 - Ways to know children's alternative conceptions
3. Teaching Science in Primary Education
 - Science teaching models: traditional, discovery, and constructivism
 - The science teacher's role
 - Sequencing and organizing activities for science learning
4. Science Activities in Primary Education
 - Activities promoting the development of observation, classification and comparison
 - Activities promoting the development of investigations
 - Activities promoting the development of measuring
 - Activities promoting scientific literacy
5. Assessment in science education
 - Goals of assessment in primary science education
 - Summative and formative assessment
 - Strategies for the development of assessment in science education

3. Avaluació

1. Classroom attendance in lab work sessions

Students are expected to attend lab work sessions. Attendance control will be made explicit for each lab work sessions.
2. Writing a Lab book

Students are expected to write a lab book which includes a description of each lab work session. For each lab work session the following aspects need to be included: (a) The title of the activity, (b) The original worksheet given to students, (c) What is the proposal? (Write down the purpose, question and suggested actions, (d) What have we done? (Write down the group actions and thoughts during the activity), (e) What are the general conclusions? (Write down the personal and educational value of the activity), (f) New english vocabulary, (g) Personal conclusions
3. Writing a critical book summary

Students are expected to write a one page summary on the basic ideas of selected assigned readings
4. Final written exam

4. Fonts d'informació bàsica

The course work will be developed through the following type of activities:

1. Whole class and group work in the classroom to discuss and reflect on educational ideas and real classroom experiences
2. Lab work and field work to gain direct experience with natural phenomena and reflect on the educational value of these experiences
3. Individual work focusing on specific reading assignments
4. The construction of a Lab Book containing the Lab Work Reports for each session

Bibliografia recomanada

1. Harlen, Wynne (2000). Teaching, Learning and Assessing Science 5-12. London: Paul Chapman.
2. Pujol, RosaMaria (2003). Didáctica de las ciencias para la educación primaria. Madrid: Editorial Síntesis.
3. Several articles on specific aspects of science teaching and learning