



IDENTIFYING DATA

Natural sciences learning

Subject	Natural sciences learning			
Code	P02G110V01403			
Study programme	(*)Grao en Educación Infantil			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	2nd
Teaching language	Galician			
Department	Special Didactics			
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General description	The Organic Law of Education (*L.O.E.) establishes an area of knowledge designated Knowledge of the outline and interaction with the world, in the Childhood Education, and presents the corresponding curriculum with an approach *globalizado to face discovered the a first approach of the *alumnado to the development of the basic competitions.			

However, the necessary **afondamento in levels of upper training does that, for example, in the university level, the matter Knowledge of the Half Natural, Social and Cultural was object of investigation and teaching by part of *profesorado specialist.

The university educational practice and the lines of didactic investigation, in this field, have to contemplate methodologies and conceptual constructions, **procedementais and *actitudinales, always in interaction, relative to global problems of actuality such as the referred to the environment and to the sustainable development and with the horizon of the development of the basic competitions. In this way, splitting of the own methodologies of the didactic of the sciences, can use the approaches *C-**T-**S, the ones of the construction of the knowledge around global problems, the ones of scientific and technical literacy of the citizenship, or the ones of the Education in Global Science, that have to include the introduction of the *transversalidad, loaning special attention to the equality between men and women, inside a model *integrador .

In the present course will continue with the experimentation of the Project of Innovation: "DESIGN And IMPLANTATION OF PROCEDURES And INSTRUMENTS OF EVALUATION IN DEGREES And *POSTGRADOS Through The PLATFORM FEAR: QUESTIONNAIRES **KPSI, *RÚBRICAS And CONCEPTUAL MAPS IN DIGITAL FORMAT" (Slope of Resolution *Rectoral), consistent in:

In this frame propose the design and implantation of procedures that *inciden in the process of learning (formative evaluation and **formadora, in which the *alumnado is **corresponsable) through the following instruments: Questionnaires or forms **Knowledge **and *Prior **Study **Inventory (**KPSI), *Rúbricas or matrices of assessment and Conceptual Maps. All they are inserted in the combination between the cooperative work and the individual, as well the processes of learning take place socially, the learning is individual. In the case of the Conceptual Maps also use like proofs of execution or realisation.

Competencies

Code	
A2	That the students know to apply his knowledges to his work or vocation of a professional form and possess the competitions that are used to to show by means of the preparation and defence of arguments and the resolution of problems inside his area of study.
A3	That the students have the capacity to gather and interpret notable data (usually notable of índole social inside his area of study) to issue trials that include a reflection on subjects, scientific or ethical.
A4	That the students can transmit information, ideas, problems and solutions to a so much specialised public as no skilled.
B1	Know the aims, contents curriculares and criteria of evaluation of the Childhood Education.

B2	Promote and facilitate the learnings in the first infancy, from a perspective globalizadora and integradora of the different cognitive dimensions, emotional, psicomotora and volitiva.
B3	Design and regulate spaces of learning in contexts of diversity that attend to the singular educational needs of the students, to the equality of gender, to the equity and to the respect to the human rights.
B4	Boost the convivencia in the classroom and out of her and tackle the peaceful resolution of conflicts. Know observe systematically contexts of learning and convivencia and know reflexionar on them.
B5	Reflexionar In group on the acceptance of norms and the respect to the other. Promote the autonomy and the singularity of each student like factors of education of the emotions, the feelings and the values in the first infancy.
B6	Know the evolution of the language in the first infancy, know identify possible dysfunctions and look after his correct evolution. Tackle with efficiency situations of learning of tongues in contexts multiculturales and multilingual. Express oralmente and by writing and dominate the use of different technical of expression.
B7	Know the educational implications of the technologies of the information and the communication and, in particular, of the television in the first infancy.
B8	Know foundations of dietary and childish hygiene. Know foundations of early attention and the bases and developments that allow to comprise the psychological processes, of learning and of construction of the personality in the first infancy.
B9	Know the organisation of the schools of childish education and the diversity of actions that comprises his operation. Assume that the exercise of the educational function has to go perfecting and adapting to the scientific changes, pedagogical and social along the life.
B10	Act like orientador of mothers and parents in relation with the familiar education in the period 0-6 and dominate social skills in the deal and relation with the family of each student and with the group of the families.
B11	Reflexionar On the practices of classroom for innovar and improve the educational work Purchase habits and skills for the autonomous and cooperative learning and promote it in the students.
B12	Comprise the function, the possibilities and the limits of the education in the current society and the fundamental competitions that affect to the schools of childish education and to his professionals. Know models of improvement of the quality with application to the educational centres.
D1	Capacity of analysis and synthesis
D2	Capacity of organisation and planning
D3	oral and written Communication
D4	Knowledge of foreign tongue
D5	Knowledge of computer
D6	Capacity of management of the information
D7	Resolution of problems
D8	Takes of decisions
D9	Work in team
D10	Work in an international context
D11	Skills in the interpersonal relations
D12	Recognition of the diversity and multiculturalidad
D13	critical Reasoning
D14	ethical Commitment
D15	autonomous Learning
D16	Adaptation to new situations
D17	Creativity
D18	Leadership
D19	Knowledge of other cultures and habits
D20	Initiative and spirit emprendedor
D21	Motivation by the quality
D22	Sensitivity by environmental subjects

Learning outcomes

Expected results from this subject	Training and Learning Results	
Ability to analyze critically a basis, legislation, objectives, methodology and evaluation of the area of environment. Knowledge of and interaction with the world in Early Childhood Education from a comprehensive approach.	A3	B1 D1
		B2 D6
		B3 D8
		B4 D10
		B5 D13
		B6 D14
		B7
		B8
		B9
		B10
		B11
		B12

Capacity to comprise the complexity of the educational processes of the experimental sciences in the And. Childish splitting of the previous experiences of the students of this educational stage.	A3	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D2 D7 D8 D9 D13 D16 D17
Capacity to comprise the construction of the scientific knowledge and of the school science.	A3	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D1 D6 D7 D13 D14 D15 D22
Ability to relate rationale, objectives, methodology and evaluation of learning of science education in Early Childhood Education from a global approach.	A2	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D1 D2 D7 D8 D13 D15
Capacity to use and elaborate didactic resources in support paper and digital for the education of the sciences in the Childish Education.	A4	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D1 D2 D3 D5 D6 D7 D8 D9 D11 D12 D13 D14 D15 D17 D18 D19 D20 D21 D22

Capacity to realise experimental activities in the classroom-laboratory and in the surroundings.	A2	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D1 D2 D3 D4 D5 D6 D7 D8 D9 D11 D13 D14 D16 D17 D18 D20 D21 D22
Capacity to use the Internet and the social media (press impress, digital and TV) like sources of multimedia resources and design activities of classroom - laboratory.	A4	B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12	D1 D2 D5 D6 D7 D8 D9 D11 D13 D14 D15 D16 D17 D18 D20 D21 D22

Contents

Topic

The didactic of the experimental sciences for the future *profesorado of childish education.	The didactic device for the education of the experimental sciences in the childish education.
Rationale, objectives, methodology, content and knowledge assessment contour area in early childhood education.	Critical study of the curriculum of childish education for the area of knowledge of the outline of the decree of educations of the autonomous community of Galicia.
The resources for the education of the knowledge of the outline in the childish education.	Knowledge and utilisation of didactic resources for the education of the area of knowledge of the outline.
(*)Os contidos de coñecemento do medio natural na educación infantil desde un enfoque globalizador.	(*)Coñecemento das distintas sección do currículo da educación infantil.

Planning

	Class hours	Hours outside the classroom	Total hours
Debate	14	11.9	25.9
Classroom jobs	5	7.5	12.5
Scientific events	10	20	30
Laboratory practices	7.5	11.25	18.75
Group tutoring	3	2.25	5.25
Problem based learning	0	22.6	22.6
Lecturing	9	18	27
Essay questions exam	4	4	8

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Debate	Debates in the classroom
Classroom jobs	Realisation of works of classroom

Scientific events	Conferences and workshops
Laboratory practices	Realisation of experimental activities
Group tutoring	Tutoring group
Problem based learning	Realisation of globalized activities
Lecturing	Exhibitions teacher

Personalized attention

Methodologies	Description
Lecturing	
Debate	
Scientific events	
Classroom jobs	
Laboratory practices	
Group tutoring	

Assessment

	Description	Qualification	Training and Learning Results		
Classroom jobs	Realisation of works of classroom	40	A2	B1	D1
			A3	B2	D2
			A4	B3	D3
				B4	D4
				B5	D5
				B7	D6
				B8	D7
				B9	D8
				B10	D9
				B11	D11
				B12	D12
					D13
					D14
					D15
					D16
					D17
					D18
					D19
					D20
					D21
					D22
Laboratory practices	Realisation of practices of laboratory	20	A2	B1	D1
			A3	B2	D2
			A4	B3	D3
				B4	D4
				B5	D5
				B6	D6
				B7	D7
				B8	D8
				B9	D9
				B10	D10
				B11	D11
				B12	D12
					D13
					D14
					D15
					D16
					D17
					D18
					D19
					D20
					D21
					D22

Essay questions exam	The students will realise individually a face-to-face proof written on the contents developed in the classroom and in the laboratory.	40	A2 A3	B1 B2 B3 B4 B6 B7 B8 B9 B10 B12	D1 D3 D4 D5 D6 D7 D9 D10 D12 D13 D14 D15 D16 D19 D20 D21 D22
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Other comments on the Evaluation

Each student and each student will prepare a folder, in particular section specific virtual classroom, which consist of a personal diary of monitoring the academic sessions, with the lecture notes, extensions, contributions, and own reflections with the assessment and evaluation of the corresponding session. To continuous assessment through virtual classroom activities need to attend classes by 80% of the time in person with proper use. The documents and files of work and tasks of the course will be arranged in a timely manner according to the deadlines programmed, each student and each student in their personal space in its virtual classroom course, in formats of open source or free displays.

1ª CONVOCATORIA: For a positive evaluation is necessary to get the passing grade in each of the sections established in the assessment tests and observe a correct behavior in the sessions since they will be considered an essential condition that the use and participation are suitable. The final grade will be obtained by aggregating the percentage of each of the unique qualifications.

2nd CONVOCATORIA: To obtain a positive assessment students can opt to benefit from the same conditions as those set for the 1st call or the completion of two written exams Presence on the contents developed in Aual and laboratory, respectively. Need to get a passing grade in each of the sections established in the assessment tests and observe a correct behavior in the sessions, since they valued as essential condition that the use and participation are suitable. The final grade will be obtained by aggregating the percentage of each of the unique qualifications. Students who do not attend the classes will take a theoretical and practical in dates officially established.

Sources of information

Basic Bibliography

ARIAS, A. et al, **O traballo por proxectos en infantil, primaria e secundaria**, 1ª, Consellería de Educación e O.U. Xunta de Galicia., 2009

Ramiro i Roca, E., **La maleta de la ciencia.**, 1ª, Editorial Graó, 2010

VanCleave , Janice, **Química para niños y jóvenes.**, 1ª, LIMUSA WILEY, 2005

Battista Quinto Borghi, **Los talleres en educación infantil. Espacios de crecimiento.**, 1ª, Editorial Graó., 2009

Complementary Bibliography

Recommendations

Subjects that continue the syllabus

Knowledge of the natural environment/P02G110V01901

Subjects that it is recommended to have taken before

Education: Health education and its teaching/P02G110V01301

Other comments

See section of evaluation