



IDENTIFYING DATA

Education: The application of new technologies to children's education

Subject	Education: The application of new technologies to children's education			
Code	P02G110V01103			
Study programme	(*)Grao en Educación Infantil			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	1st	1st
Teaching language	Spanish Galician English			
Department				
Coordinator	Martínez Figueira, María Esther			
Lecturers	Domínguez Pérez, María Teresa Martínez Figueira, María Esther Mondolfi Miguel, María Luisa Páramo Iglesias, María Beatriz			
E-mail	esthermf@uvigo.es			
Web				
General description	<p>This matter fulfils a fundamental paper derived of his instrumental and formative character:</p> <ul style="list-style-type: none"> - it Has an instrumental character because they work the necessary competitions for the handle of the technologies like tools for the research, treatment, organisation and representation of the information. In this sense, serves of support to other matters of the plan of studies. - It has a formative character because it offers a new vision of how teach and how learn in the school inside the society of the information and the knowledge. <p>In this matter will have the opportunity to know, analyse and value which is the new paper of the teacher, of the students and of the elements that configure the didactic act, which is the new way to teach and learn with the technology. Like this you will know, between other things, to use new didactic resources with technological base, how design and elaborate didactic materials employing the technology, which strategies of work employ with the new technologies in the school ...</p> <p>Finally, as teacher will be necessary that you are able to help to your students develop in this new technological field but with a critical and reflexive vision, that allow him discover in the technologies a tool no only for his leisure and free time, but also for his training like free and responsible citizens.</p>			

Competencies

Code	
A1	(*)Coñecer os obxectivos, contidos curriculares e criterios de avaliación da Educación Infantil
A2	(*)Promover e facilitar as aprendizaxes na primeira infancia, desde unha perspectiva globalizadora e integradora das diferentes dimensións cognitiva, emocional, psicomotora e volitiva
A3	(*)Deseñar e regular espazos de aprendizaxe en contextos de diversidade que atendan ás singulares necesidades educativas dos estudantes, á igualdade de xénero, á equidade e ao respecto aos dereitos humanos
A4	(*)Fomentar a convivencia na aula e fóra dela e abordar a resolución pacífica de conflitos. Saber observar sistematicamente contextos de aprendizaxe e convivencia e saber reflexionar sobre eles
A5	(*)Reflexionar en grupo sobre a aceptación de normas e o respecto aos demais. Promover a autonomía e a singularidade de cada estudante como factores de educación das emocións, os sentimentos e os valores na primeira infancia
A6	(*)Coñecer a evolución da linguaxe na primeira infancia, saber identificar posibles disfuncións e velar pola súa correcta evolución. Abordar con eficacia situacións de aprendizaxe de linguas en contextos multiculturais e multilingües. Expresarse oralmente e por escrito e dominar o uso de diferentes técnicas de expresión
A7	(*)Coñecer as implicacións educativas das tecnoloxías da información e a comunicación e, en particular, da televisión na primeira infancia

A8	(*)Coñecer fundamentos de dietética e hixiene infantís. Coñecer fundamentos de atención prematura e as bases e desenvolvementos que permiten comprender os procesos psicolóxicos, de aprendizaxe e de construción da personalidade na primeira infancia
A9	(*)Coñecer a organización das escolas de educación infantil e a diversidade de accións que comprende o seu funcionamento. Asumir que o exercicio da función docente debe perfeccionarse e adaptarse aos cambios científicos, pedagóxicos e sociais ao longo da vida
A10	(*)Actuar como orientador de pais e nais en relación coa educación familiar no período 0-6 e dominar habilidades sociais no trato e relación coa familia de cada estudante e co conxunto das familias
A11	(*)Reflexionar sobre as prácticas de aula para innovar e mellorar o labor docente Adquirir hábitos e destrezas para a aprendizaxe autónoma e cooperativa e promovela nos estudantes
A12	(*)Comprender a función, as posibilidades e os límites da educación na sociedade actual e as competencias fundamentais que afectan aos colexios de educación infantil e aos seus profesionais. Coñecer modelos de mellora da calidade con aplicación aos centros educativos
B1	(*)Capacidade de análise e síntese
B2	(*)Capacidade de organización e planificación
B5	(*)Coñecemento de informática
B6	(*)Capacidade de xestión da información
B7	(*)Resolución de problemas
B8	(*)Toma de decisións
B9	(*)Traballo en equipo
B10	(*)Traballo nun contexto internacional
B11	(*)Habilidades nas relacións interpersoais
B13	(*)Razoamento crítico
B14	(*)Compromiso ético
B15	(*)Aprendizaxe autónoma
B16	(*)Adaptación a novas situacións
B17	(*)Creatividade
B18	(*)Lideranza
B20	(*)Iniciativa e espírito emprendedor
B21	(*)Motivación pola calidade

Learning aims

Expected results from this subject	Training and Learning Results	
Analyse the context of the current society of the information and to reflect on the new social surroundings and educational that generate the Technologies of the Information and the Communication (ITC), giving place to the need to purchase new personal and professional competitions.	A9 A11	B2 B6 B9 B13 B15 B21
Comprise critically the technological reality.	A1 A9 A10 A12	B1 B2 B5 B6 B13 B14 B21
Familiarise with the legislative frames that regulate the digital surroundings and know the applicable legislation to the use of the new technologies of the information and the communication in the childish education.	A1 A5 A11 A12	B1 B2 B5 B6 B13 B14 B15 B16 B21
(*)Analizar as linguaxes audiovisuais e as súas implicacións educativas.	A7	B1 B6

Purchase theoretical concepts and practical skills for the employment of skills that empower to the student in the handle and application of the new technological means and digital in his training continued and the professional exercise.	A1 A3 A4 A6 A7 A9 A10 A11 A12	B1 B2 B5 B6 B8 B10 B13 B14 B15 B16 B17 B18 B20 B21
Build a base of knowledges, attitudes and useful technical skills for the master future in the development of his professional activity that allow him a suitable utilisation of the technological resources to his scope, analysing and *reflexionando on the implications that said utilisation has in the design and development curricular.	A7 A9 A11	B2 B5 B6 B9 B15 B21
Be able to look for, select and evaluate or design and build didactic materials in technological support adapted to the characteristics of the students and of the contents of learning, as well as to realise a didactic proposal of integration curricular in specific contexts.	A7 A11	B2 B5 B6 B15
Know and identify new technological means and recognise the possibilities of application of the same to the childish education in function of his characteristics.	A3 A6 A7 A9 A11 A12	B1 B2 B5 B6 B13 B15 B16 B17 B20 B21
Purchase the necessary skills for the handle technical, the production of materials and the didactic utilisation of the diverse means and technological resources: photographic camera, camera of video, video projector, computer, printer, scanner and Internet, etc..	A7	B5 B6 B15
Identify strong and feeble points in the digital materials evaluating and determining his possibilities of integration in the processes of education-learning.	A11 A12	B1 B5 B6 B13 B21
Integrate the new media in the processes of education-learning.	A2 A3 A9 A11 A12	B1 B2 B5 B6 B14 B16 B17 B20 B21
Purchase the necessary skills for a suitable management of the information with educational ends: research, selection, treatment, organisation and representation of the information.	A7 A11	B5 B6 B15
Face the production and adaptation of materials and technological resources of creative and innovative form adjusting to the needs of specific surroundings.	A1 A2 A3 A4 A10 A11 A12	B1 B2 B5 B6 B7 B8 B9 B13 B16 B17 B18 B20 B21

Reflect critically on the determinants social, psychological and ideological of the processes of communication and training mediated by technology.	A7 A11	B5 B6 B15
Use of form colaborative and promote the use colaborative of the new technologies in different contexts socio-educational.	A3 A4 A5 A7	B2 B8 B9 B10 B11 B16 B18
Develop the capacities of collaboration, active participation and work in team like basic instruments of the training like educational futures and take consciousness that the education is a work of team.	A7 A11	B5 B6 B9 B15
Predicting and react to problems or difficulties that can derive of the use and application of the technological and digital means to the exercise of the childish education.	A2 A4 A5 A8	B7 B11 B16
Work autonomously, with an academic positioning and an attitude researcher in front of the educational processes in general and the virtual education or elearning, in particular.	A7	B5 B6 B15
Perceive and face the limitations and difficulties of use the new technologies from an attitude overcoming permanent and constant improvement.	A1 A9 A10 A11 A12	B1 B5 B6 B7 B8 B13 B14 B15 B17 B20 B21
Boost experiences of initiation to the technologies of the information and the communication.	A7	B5 B6 B15
Tackle the analysis of field by means of observational methodology using technologies of the information, documentation and audiovisual.	A4 A7	B1 B5 B6
Experience and integrate the technicians of observation and register.	A1 A3 A4 A5 A9 A10 A11 A12	B1 B2 B5 B6 B13 B14 B15 B16 B20 B21
Analyse and incorporate of critical form the most notable questions of the current society that affect to the familiar and school education: social and educational impact of the audiovisual languages and of the screens.	A7 A12	B1 B6 B9 B15

Contents

Topic	
THEORETICAL PART	10 subjects
Subject 1.- The ITC in the society of the information	1.1. Technological literacy and digital competition 1.2. Social and educational impact of the audiovisual and digital culture 1.3. Paper of the educational centres in the society of the information
Subject 2.- The integration of the ITC in educational contexts	2.1. Factors that influence in his integration 2.2. Perspectives curricular and models of integration of the ITC 2.3. National projects of implantation of the ITC in the centres. The project Abalar in Galicia.

Subject 3.- Multimedia resources for the education	3.1. Concept, classification and characteristic of the multimedia educational 3.2. Functions and orientations for the didactic use of the multimedia educational 3.3. Selection and evaluation of multimedia educational 3.4. Design and preparation of multimedia didactic materials
Subject 4.- Resources web for the education	4.1. Tools of communication for the education: mail, forums, chat, mail.... 4.2. Educational applications of the Web 2.0 4.3. Methodologies of work with Internet in the classroom: webquest, huntings of the treasure...
Subject 5.- New educational possibilities and challenges in the network	5.1. Security of the infancy in Internet 5.2. Virtual surroundings of education-learning and work collaborative with ITC 5.3. Reality increased
Subject 6.- The audiovisual language and the mass media	6.1. Reading of images. The digital image 6.2. The television and the advertising in the classroom 6.3. Other mass media in the classroom
Subject 7.- Educational utilisation of the video and of the cinema	7.1. Functions of the video in the education 7.2. Methodology, use and didactic exploitation of the videos 7.3. Integration of the cinema in education and in the classroom
Subject 8.- Educational inclusion with support of the ITC	8.1. The technologies of support to the diversity: typologies and functions 8.2. Advantages and criteria for the integration of the ITC for the inclusion of the students.
Subject 9.- New resources TIC for the process of education-learning	9.1. Of the book of text to the digital book 9.2. The digital Blackboard in the classroom 9.3. Mobile devices
Subject 10.- The evaluation and the tutorial through the ITC	10.1. The portfolio and the rubric for the evaluation and follow-up of learnings 10.2. The action tutorial mediated by ITC
PRACTICAL PART: they propose the following thematic to work. It will do a session of diffusion of all the projects in the Faculty.	- Law of data protection and Security of the infancy in internet. - Periodic digital pupil. - School television. - Educational videos. - Material and interactive resources. - Interactive digital blackboard. - M-Learning and the BYOD in the educational centres: Ipad, tablet, smartphone - Other resources: and-comic, e-book

Planning

	Class hours	Hours outside the classroom	Total hours
Presentations / exhibitions	2	14	16
Classroom work	2	4	6
Group tutoring	2	10	12
Autonomous practices through ICT	28	42	70
Master Session	19	19	38
Multiple choice tests	1	7	8

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

Methodologies

	Description
Presentations / exhibitions	Exhibition by part of the student in front of the educational and/or a group of students of contents of the matter. Can carry out individually or in group.
Classroom work	The student develops exercises or projects linked to each one of the subjects.
Group tutoring	You interview that the student is supported by the teacher of the matter for advice/develop of activities of the matter and of the process of learning. They go directed to guide all the process of learning providing documentation, resolving doubts, orienting works, correcting proposals, etc.
Autonomous practices through ICT	Activities of application of the knowledges to concrete situations and of acquisition of basic skills and procedural related with the matter. They develop through the ITC of autonomous form.
Master Session	Exhibitions on contents of the matter, theoretical bases and/or guidelines of a work, exercise or practical to develop individual or grupal.

Personalized attention

Methodologies	Description
---------------	-------------

Group tutoring	Personalised attention to demand of the students, in the planned specific sessions for this and by means of the schedule of tutoria distinguished.
Presentations / exhibitions	Personalised attention to demand of the students, in the planned specific sessions for this and by means of the schedule of tutoria distinguished.
Classroom work	Personalised attention to demand of the students, in the planned specific sessions for this and by means of the schedule of tutoria distinguished.
Autonomous practices through ICT	Personalised attention to demand of the students, in the planned specific sessions for this and by means of the schedule of tutoria distinguished.

Assessment

	Description	Qualification
Presentations / exhibitions	Presentation and oral exhibition with multimedia and scientific poster on the project of practices.	50
Classroom work	Results of the activities that resolve in the subjects of theory.	10
Multiple choice tests	It tests type test of multiple election on the theoretical contents of the matter.	40

Other comments on the Evaluation

To surpass the matter is necessary to have a minimum punctuation in the theory (2'5 points of 5 points of theory) and in the practices (2'5 points of 5 points of practices). The no purchased competitions will be evaluated in 2ª announcement and, of not to approve then, will not save the notes for the following announcement. According to the valid rule, with independence of his assistance or no to classes, the students will enjoy of equivalent conditions of evaluation.

Sources of information

Cebrian De la Serna, M.; Gallego Arrufat, M.J, **Procesos educativos con TIC en la sociedad del conocimiento**, 2011,
 Raposo Rivas, M., **Novas tecnoloxias aplicadas a educacion: aspectos tecnicos e didacticos**, 2002,
 Raposo Rivas, M. y Martínez Figueira, M.E. (coord.), **As TIC e as súas aplicacións na aula: misión posible.**, 2012,
 Martínez Figueira, M.E. (coord.), **TIC para a inclusión de alumnado con necesidades específicas de apoio educativo.**, 2013,

Other readings recommended:

Books:

- Raposo Rivas, M. And Doval Ruiz, Mª I. (2005) Practising cn TICs in formative contexts. Ourense: Aceroplus.
- Fit it Almenara, J. (Coord); Alonso García, C. M. y otros (2007).Tecnología educativa. Madrid: McGraw-Hill, Interamericana of Spain.
- Fit it Almenara, Julio y Romero Has it, Rosalía (coords.) (2007). Diseño y producción of TIC for wool training. Barcelona: UOC Publishing.
- Fit it, J; Cordoba, M. y Fernández Batanero, J. M. (Coords.) (2007). Wools TIC for wool igualdad. Nuevas tecnologías y Attention to wool diversidad. Seville: Eduforma.
- Salinas, J., I. Aguaded And J. Fit it (coords.) (2004). Tecnologías for wool education: diseño, producción y evaluación of means for wool training docente. Madrid: Publishing Alliance.

Magazines:

- Classroom of educative innovation. You can consult the indexes of the articles in the web of the Editorial.
- Bordón. You can consult the indexes of the articles in the web of the Editorial.
- British Journal of Educational Technology. Magazine cuatrimestral. Published since 1970 pole National Council was Educational Technology (NCET), Milburn Hill Road, University Science Park. Coventry, CV4 7JJ, UK, London W1. ISSN: 0007-1013. You can consult the indexes of the articles in the web of the Editorial.
- Cuadernos Of Pedagogía. You can consult the indexes of the articles in the web of the Editorial.
- COMMUNICATE Magazine of media y education. Group Pedagógico Andaluz "Press y Education" ISSN: 1134-3478.
- Edutec Electronic magazine of Tecnología Educativa.
- Pixel-Bit. Magazine of Means y Education. Edited pole Secretariat of Resources *Audiovisuales *y *Nuevas Tecnologías.*Universidad Of Seville.
- Quaderns Digitals. Magazine of Nuevas Tecnologías y Sociedad.
- RED, magazine of education to distance.

- Magazine of Education. Ministry of Education, Social Politics y Sport. Available in Internet the complete articles.
- Magazine Red Digital (of the Ministry of Education).
- Magazine Iberoamericana of Education to Distance (RIED). Available in digital version, the complete articles.
- Magazine Latinoamericana of Tecnología Educativa (RELATEC).
- RUSC. Magazine of Universidad y Sociedad of @el Conocimiento. UOC. Available *online, of complete form.
- HAVE THEM. Cuadernos Of communication and innovation. Available on-line.

You link of educative interest:

Institutional:

- Centre of Investigation y Educative Documentation (CIDE), (Ministry of Education), *EDUCARED (Telephonic Foundation).
- European Schoolnet. It IS a iniciativa only, a frame of work stop the collaboration between European Ministries of Education, pretends aunar the information of the distinct nets of European education. (Clicks
- Institute of Tecnologías Educativas (ITE), of the Ministry of Education.
- Educative portal of the Department of Education and Ordenación University of the Xunta de Galicia.
- Channel of the Department of Education in YouTube.
- Channel Educative TV of the Conselleria of Education and Ordenación University.
- Portal of contenidos of Extremadura.
- Portal of educative resources of Navarra.
- Educative portal of the Valencian Community - School lliurex.
- Educative portal of Andalucía - Averroes.
- Educative portal of Aragón.
- Educative portal of Castilla and Lion.
- Educative portal of Wool Rioja.
- Educative portal of Madrid - *EducaMadrid.
- Educative portal of Murcia - EDUCARM.

Banks multimedia:

- Of the Department of Education and Ordenación University.
- Of the Institute of *Tecnologías Educativas (ITE).

Libraries:

- Google Print. An enormous virtual library where can look for any subject of way so simple how do it in Google. In the resulted can appear books with copyright (of the that only will be able to see some pages) or books of public access that will be able to see in the his page web.
- Project Gutenberg. More of 17000 books of public access online. Mainly in English.
- Project Witch. Project that integrates the libraries of the Galician community. The users have the possibility to access to the virtual net of libraries, to chats, the messages and to the query of the catalogues in real time. #Be able to use how pedagogical tool in the classroom.
- Universal Library. @Mil of books in digital format. Mostly English. Project of the University of Carnegie Mellon.

Recommendations

Subjects that continue the syllabus

Education: Diversity and the inclusive school/P02G110V01302

Subjects that are recommended to be taken simultaneously

Education: Curriculum design and development in children's education/P02G110V01102

Education: Organization of the learning center/P02G110V01203

Psychology: Psychology of early childhood development for the year 0-6/P02G110V01104

Education: Teaching and orientation with the family/P02G110V01303

Other comments

It RECOMMENDS :

continuous Assistance to the sessions of theory and practical. The assistance considers fundamental for the follow-up of the matter by part of the students and for the evaluation, by part of the educational, of the degree of development of the instrumental capacities and procedurals.
