



The study guide for the course

University of Oviedo, Spain

1. Subject Identification

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|-----------------------------|---|--|---|---|
| NAME | Innovation and Project in primary education | | CODE | |
| DEGREE | Elementary Education Teacher | CENTER | Faculty of Teacher Training and Education | |
| TYPE | Compulsory | E.C.T.S. | 6 | |
| PERIOD | Semester | LANGUAGE | English | |
| COORDINATOR LECTURER | | PHONE/EMAIL | | ADDRESS |
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2. ContextDegree

Primary education is part of basic education is free and compulsory and comprises six academic courses will attend usually between six and twelve years of age and aims to provide all children an education that enhances their personal development and their own welfare, acquire basic cultural skills related to speaking, listening, reading, writing and arithmetic, as well as develop social skills, work habits and study the artistic sense, creativity and emotions

To effectively develop own educational processes of the different areas of this stage, teachers have to acquire the theoretical and practical training in accordance with the objectives set out in the laws that regulate their functions. Teachers of this phase of education are required to be able to actively participate in the design and development of innovative projects that contribute to the continuous improvement of the educational system, especially those that affect the improvement of their own teaching practices.



Importantly, primary education must be characterized to establish the necessary harmony between amount of learning that build your students and the quality of their development and their abilities, consolidating basic skills commensurate with their age and capabilities, but mostly as basis for learning to be performed in the future, given the nature of this preparatory school stage.

It has 6 ECTS credits, which represent a total of 150 hours, 60 on-campus activities hours and 90 self-study hours.

From the organizational point of view, the subject will have two hours of lectures a week (for a total of 21 hours), one hour seminar (for a total of 7 hours), two hours of laboratory practice (for a total 28 hours), and 2 group tutorials hours.

3. Requirements

No mandatory requirements established prior to study this subject. However, it is highly recommended that those who studying this subject have updated knowledge of Basic Psychology and Development, General Didactics, Organization and Management of Teaching and Application of ICT in education centers. take this course, it is recommended to have successfully acquired the learning objectives established in the subjects *Software Process Engineering* and *Software Design* of the first semester of the third year.

4. Competencies and Learning Outcomes

Besides taking into account the general, transversal and specific competences of the degree, particularly those referred then referred the matter specific competencies and learning following results:

General Competencies

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| CG2 | That students can apply their knowledge to their work or vocation in a professional manner and have competences typically demonstrated through devising and sustaining arguments and solving problems in education |
| CG3 | That students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical. |
| CG4 | Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences. |
| CG5 | Students have developed those learning skills needed to undertake further study with a high degree of autonomy. |
| CG6 | Students to develop an ethical commitment to respect fundamental rights, ensuring effective equality of men and women, equal opportunities, non-discrimination and universal accessibility for people with disabilities, as well as the values of a culture of peace and democratic values |



Specific Competencies – Education Teacher

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|------|--|
| CE2 | Design, plan, develop and evaluate teaching and learning, both individually and in collaboration with other teachers and school professionals. |
| CE3 | Effectively address situations of language learning in multicultural and multilingual contexts. Promote reading and critical analysis of texts of various scientific and cultural content in the school curriculum domains. |
| CE4 | Designing learning spaces and regulate diversity of contexts that address gender equality, equity and respect for human rights which satisfy the values of citizenship education. |
| CE5 | Promote coexistence in the classroom and beyond, solve discipline problems and contribute to the peaceful resolution of conflicts. Encourage and value the effort, perseverance and self-discipline in students. |
| CE6 | Understand the organization of primary schools and the diversity of actions comprising operation. Perform the functions of mentoring and guidance to students and their families, meeting the unique educational needs of students |
| CE7 | Collaborate with the various sectors of the educational community and the social environment. Assume the educational dimension of the teaching profession and promote democratic education for active citizenship. |
| CE8 | Maintain a critical and autonomous with respect to knowledge, values, and public and private social institutions relationship. |
| CE9 | Assess individual and collective responsibility in achieving a sustainable future. |
| CE10 | Reflect on classroom practices to innovate and improve teaching. Acquire habits and skills for independent and cooperative learning among students and promote |
| CE11 | Know and apply classroom information technologies and communication. Selectively distinguish audiovisual information that contributes to learning, civic education and cultural richness. |



Specific Competencies – Innovation and Project in Primary Education

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|---------|--|
| CEM15.1 | Ability to interpret the concept and context of educational innovation. |
| CEM15.2 | Conceptual and instrumental-functional domain of the basic processes of educational innovation in Primary Education |
| CEM15.3 | Being able to make appropriate diagnostic processes needs and areas of improvement decisions and selection, design, implementation and evaluation of innovation processes with those chords. |

Learning Outcomes

The learning outcomes that students will achieve after completing the course as stated in the *Verification Report* for the *Degree in Software Engineering*, are as follows (the first column of the table shows the notation of each learning outcome in the verification report):

| | |
|--------|---|
| RA15.1 | Making complex Software Engineering Projects that provide solutions to real problems and to solve them using techniques and technologies related to manufacturing processes, including software frameworks, architectural patterns, design and integration patterns, and quality software development |
| RA15.2 | To apply different construction techniques in designing low level software |
| RA15.3 | Develop design and object-oriented programming with a high level of competence |

5. Syllabus

Topic I.- Conceptual scope of educational innovation.

Topic II.- Structure and processes of educational innovation. Application to education in general and primary education.

Topic III.- Scopes and educational innovation actors

Topic IV.- Technological dimension of educational innovation.

Topic V. Context of educational innovation: Using ICT, educational research and evaluation.

Topic VI.- Project Design and Development for Innovation in Education. Application to Primary Education.



6. Working plan and methodology

Course schedule:

| Content (topics) | Study week | Lectures | Seminars / Laboratory |
|---|------------|---|--|
| 1. Introduction to the concept of educational innovation | Week 1 | Online lecture 11 th September 19:00-20:30 | CASE Tool (Seminar-Documentation) |
| 2. Principles and conditions for education innovation | Week 2 | Online lecture 18 th September 19:00-20:30 | UML (Seminar-Video) |
| 3. Application to education in general and primary education. | Week 3 | Online lecture 25 th September 19:00-20:30 | Case of example (Laboratory-Online) |
| 4. Structure and processes of educational innovation | Week 4 | Online lecture 9 th October 19:00-20:30 | Building Architecture Documentation (Seminar-Video) |
| 5. Designing a model of innovation | Week 5 | Online lecture 16 th October 19:00-20:30 | Practical Task (Laboratory-Online) |
| 6. Dimensions and areas of educational innovation in Elementary School | Week 6 | Online lecture 23 th October 19:00-20:30 | Practical Task (Laboratory-Foro-Chat) |
| 7. Technological dimension of innovation in education | Week 7 | Online lecture 30 th October 19:00-20:30 | Practical Task (Laboratory-Foro-Chat) |
| 8. Actores educativos innovación. Agentes and users | Week 8 | Online lecture 6 th November 19:00-20:30 | Practical Task (Laboratory-Foro-Chat) |
| 9. ICT and Educational Innovation | Week 9 | Online lecture 13 th November 19:00-20:30 | Practical Task (Laboratory-Foro-Chat) |
| 10. Innovation processes. Research and Evaluation | Week 10 | Online lecture 20 th November 19:00-20:30 | Practical Task (Laboratory-Online) |
| 11. Teaching diagnosis and educational innovation | Week 11 | Online lecture 27 th November 19:00-20:30 | Practical Task (Laboratory-Foro-Chat) |
| 12. Project Design Innovation I (in Elementary Education or other fields) | Week 12 | Online lecture 4 th December 19:00-20:30 | BPM (Video) Practical Task (Laboratory-Foro-Chat) |
| 13. Project Design Innovation II (in Elementary Education or other fields) | Week 13 | Online 11 th December 12:00 - 13:30 19:00-20:30 | Practical Task (Laboratory-Online) |



| Content (topics) | Study week | Lectures | Seminars / Laboratory |
|---|------------|---|-----------------------|
| 14. Project Design Innovation III (in Elementary Education or other fields) | Week 14 | Online 18 th December 19:00-20:300 | |
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| 5. Assessment | | | |
| Practical Work, oral presentation | | | |
| Theoretical test | Week 14 | Virtual Campus | |

As stated in the IEEE, students will carry out face-to-face and self-study works and teachers will supervise these activities.

Teaching activities will be of one of these five types:

- Lectures, where to establish fundamental contents and where the student will be guide for their self-study activities.
- Workshops and seminars, to drive the student through active and collaborative learning, integrating lectures and virtual campus work.
- Practices, where to make different projects to solve any proposed problems. Individual and team projects will be done, requiring for students self-study work.
- Evaluation Sessions, examinations will be carried on in order to assess student acquisition of knowledge.

7. Learning material

Learning material consists of:

- scientific literature;
- additional interesting and useful literature;
- records of presentations and online consultations in virtual learning environment;
- practical tasks;
- real time chat, discussion forums and reflection blogs;
- video seminars and presentations.

Methodology

The student will have access to the following contents:

1. Learning Guide. It describes the basic theoretical elements that will be dealt with in the online lectures.
2. Learning Objects: Basically, the learning objects are the contents of the guide, along with some additional elements (videos, audio, etc.) and the self-assessment tools. These objects will be available in the Virtual Campus.



3. Additional books and readings: These are references to other additional learning contents that expand those of the Guide and the Learning Objects. The working method of this subject is described below:
- Before an online conference (minimum of 24 h.), The student will review the relevant content in the tutorial. It is of interest that will expand your knowledge with the materials of the Virtual Campus.
 - During the conference on theoretical line, this content will again be reviewed. The content will also be expanded, using the annotated references.
 - After the lecture, the student will have to revise this document or new learning objects, and additional references that are marked as required reading
 - Required readings, will be scored as such in the Learning Guide. This review will be completed within 72 hours of video.
 - The student must participate continuously in the forums virtual campus and in the development of the glossary.
 - Practical activities will be defined for periods of 3 weeks. The practical design of an educational innovation will be submitted by December 15.

NOTE: Students who do not pass the practical activities may request an evaluation through a comprehensive examination

8. Learning Assessment

Criteria:

- Consideration will be given the skills and learning outcomes of the course.
- It values the acquisition of knowledge and its projection into practice.
- Student's intellectual growth, understanding and reasoning ability.
- There will be continuous assessment, formative and summative.

Methods:

1. Testing oral or written
2. Participation in forums and glossary
3. Practical activities:
4. Case Study
5. Troubleshooting
6. Design of education innovation

Final rating: 40% (1) + 60% (2+3+4+5+6)



9. Resources, bibliography and complementary documentation

- Allan Luke , Peter Freebody , Lau Shun & S. Gopinathan (2010). Towards Research-based Innovation and Reform: Singapore schooling in transition. In Asia Pacific Journal of Education. <http://www.tandfonline.com/doi/pdf/10.1080/02188790500032467>
- Hall, G, Y Hord, Sh. (1987) Change in Schools. Facilitating the process. State University of New York Press.
- Hargreaves, D. H. Y Hopkins, D. (eds.) (1994). Development Planning for School Improvement. London/New York, Cassell.
- Mcmillan, J.H., Schumacher, S. (2005). Investigación Educativa: Una Introducción conceptual (5ª Ed.). Madrid: Pearson Educación.
- Medina Rivilla, A (coord.) y otros (2009). Innovación de la educación y de la docencia. Madrid. Ed. CERA (Editorial Universitaria Ramón Areces).
- Nicolae, S. (2009).- Opportunities for change. Education innovation and reform during and after conflict. Paris, UNESCO.
<http://unesdoc.unesco.org/images/0018/001838/183808e.pdf>
- Perez Perez, R (2009).- “Planificación y diseño de programas para la innovación de centros formativos”, en Antonio Medina Rivilla (coord.) y otros. Innovación de la educación y de la docencia. Madrid. Ed. CERA (Editorial Universitaria Ramón Areces).
- Thomas A. Conklin (2012) Making It Personal: The Importance of Student Experience in Creating Autonomy-Supportive Classrooms for Millennial Learners. Journal of Management Education August 2013 37: 499-538, first published on August 30, 2012

NOTE: Otra bibliografía será aportada durante el desarrollo de las sesiones online.