PEDB17-126: Education technology and learning

Aims

Aims of the course:

This course was designed to provide students with the foundations for enhanced learning experiences through the meaningful integration of technology. Students will get familiarized with a wide range of educational technologies, will explore and evaluate how, when, and why technology should be infused into education, will learn how to utilize various technologies as powerful teaching and planning tools and will design meaningful learning experiences meeting learners' diverse needs. The class meets in a technology rich classroom environment to maximize opportunities for hands-on learning.

Expected learning outcomes and related competencies:

Knowledge:

- He/she has a basic knowledge of pedagogy and the application of psychology in education and human relationships.
- He/she is aware of the main international trends in education, in the development of education, and in the innovations regarded in learning, teaching and education.
- He/she is aware of the main pedagogical paradigms and he/she is familiar with their practical implementation.
- He/she knows the strategies and methods of learning and the procedures for promoting learning and teaching for students of different ages and cultural background.

Skills:

- He/she can communicate effectively in his/her mother tongue and in a foreign language as well as by using the latest IT tools. He/she is able to present information, arguments and analyses from different perspectives.
- He/she is able to take into account the social context of public education, non-governmental institutions and education systems in performing its tasks, and to apply practices appropriate to the specialities observed there, or to adapt to the existing practices.
- He/she can provide evidence, based on his/her own experience and, if necessary, scientific arguments regarding the potential application of formal, informal and non-formal educational effects and models.
- He/she is able to identify and apply adaptive pedagogical solutions that are adapted to learners and the environment. He/she is able to assist teaching and learning actors in the performance of their tasks. He/she is able to select the appropriate solution from his/her professional repertoire to design that solution individually and apply to the specific student group.

Attitudes:

- He/she accepts that theory and practice, educational science, and associate disciplines interact.
- He/she is conscious in support of learning and teaching. He/she is humane, understanding and accepting credible facilitator in achieving educational goals.
- In his/her work he/she is sensitive to issues. In his/her solutions he/she is reflective of what is offered by practice and theory, and he/she accepts that mistakes can be a source of learning and progress.

Autonomy and responsibility:

- On the basis of the assignment of a teacher or a professional leader, he/she performs the tasks entrusted to him/her and supporting his/her activities independently, under the obligation of reporting and accounting. When assisting minors, his/her responsibility is limited, and mentoring and support is required.
- He/she makes his/her decisions with realistic knowledge of his/her competencies and with a sense of responsibility.

Main topics

Main contents

1. Technology and teaching: Technology standards for 21st century learning, Challenges and opportunities for teachers
2. Technology and learning: Focus on the 21st century learner
3. Planning for technology integration: Designing quality instruction, From design to planning, Planning technology infusion, Instructional planning: challenges and opportunities for teachers
4. Technology for digital learning and delivery: Instructional delivery systems, Digital learning and delivery: Implementation Issues, Technologies for digital learning, Delivering digital learning: opportunities and challenges
5. Technologies in the digital classroom: Applications for teaching and learning: Software in the Digital Classroom, Administrative applications for teacher tasks, Academic software, Online tools
6. The Web in the digital classroom: The Internet and the evolving web, Web tools and resources for teaching and learning

Planned teaching and learning activities, methods:

- Lecture, discussion, individual, pair and group work in a blended learning environment

Evaluation

Course requirements:

Regular attendance. Each of the following assignments will be given a letter grade and weighted as follows:

- Leading a classroom discussion based on the weekly reading assignments – (20%)
- Developing a digital portfolio showcasing the use of 5 digital tools for teaching and learning (50%)
- Developing a technology-integrated unit plan (30%)

Total obtainable points: 100%

Course grades:

5 (100-90%),
4 (90-80%),
3 (80-70%),
2 (70-60%),
1 (below 60%)

Reading

Required reading:

- Howland, J., Jonassen, D., & Marra, R. (2012). Meaningful learning with technology (4th ed.). Upper Saddle River, NJ: Pearson.
- Lever-Duffy, J., & McDonald, J. B. (2018). Teaching and learning with technology (6th ed.). Boston, MA: Pearson Education.
- Roblyer, M. D., & Doering, A. H. (2019). *Integrating educational technology into teach*ing. New York, NY: Paerson Education.