Didactics of Technology

Master in Bilingual Education

2021-2022

UNIVERSIDAD NEBRIJA

TEACHING GUIDE

Subject: Didactics of Technology

Degree: Master in Bilingual Education

Type: Optional

Language: English

Modality: Blended and online

Credits: 6

Course: 1st

Semester: 2nd

Professor: Manuel Blázquez Merino

1. COMPETENCES AND LEARNING OUTCOMES

1.1. Competences Basic competencies

CB6 To possess and understand the knowledge that provides the basis or opportunity to be original in the development and/or application of ideas, often in a research context.
CB7 Students will know how to apply the knowledge acquired and their ability to solve problems in new or little-known environments within broader (or multidisciplinary) contexts related to their area of study.
CB8 Students will be able to integrate their knowledge and cope with the complexity of making judgements from information that, being incomplete or limited, includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgements.
CB9 Students will know how to communicate both their conclusions and the knowledge and ultimate reasons that sustain them to specialized and non-specialized audiences in a clear and unambiguous manner.
CB10 Students will possess the learning skills that enable them to continue studying in a largely self-directed or autonomous way.

General competencies:

CG2 To know the specific problems of FL teaching, both linguistic and cultural, in a bilingual teaching environment.
CG3 To apply the knowledge acquired in terms of making appropriate decisions regarding the different factors involved in FL learning and teaching processes.
CG5. To be able to transmit social and cultural values according to the multilingual and multicultural current situation.
CG7 To acquire basic theoretical knowledge aimed at establishing an informed teaching practice in the field of bilingual education.
CG8 To know the legislation and regulations referring to the ordering and organization of bilingual centres.

Specific competencies:

CE1 To design integrated curricula within their area of knowledge altogether with linguistic contents in order to elaborate bilingual English/Spanish teaching programmes.
CE2 To create and adapt didactic materials for bilingual English/Spanish teaching, adjusting

with sensitivity the linguistic level to the different learning rhythms, adapting the authentic material and turning it into didactic material.

CE3 To know the planning and evaluation tools necessary in the teaching/learning of English/Spanish.
CE4 To develop and apply teaching methodologies adapted to the diversity of students in an English/Spanish bilingual environment.
CE6 To incorporate new strategies, teaching materials and information technologies in activities in the English/Spanish bilingual classroom.
CE8 To be able to use specialized terminology in both English and Spanish in the field of second language acquisition.
CE10 To be able to communicate fluently at CEFR level C1.
CE13 To know and apply the advantages of the communicative approach and task-based learning for linguistic interaction in English and Spanish.
CE24 To know the curricular elements, methodology and objectives of the Technology area in a bilingual environment.
CE25 To be able to adapt content to the diversity of students for the area of Technology.
CE26 To be able to use the most appropriate didactic techniques for the area of Technology.

1.2. Learning outcomes:
Students will be able to:

- Apply their acquired knowledge and their problem-solving capacity to new environments in their study field, the teaching/learning of FL.
- Communicate in a reasonable way about subjects related to their study field.
- Acquire new knowledge autonomously in their study field, the teaching/learning of FL.
- Transmit social and cultural values meeting the European multilingual and multicultural reality.
- Base their teaching practice in an informed way according to their acquired knowledge.
- Know the legislation and regulations concerning the management and organisation of bilingual centres.
- Design curriculum integrated in the English/Spanish teaching/learning field.
- Create and adapt teaching material for bilingual education minding the different linguistic competence levels and learning rates.
- Develop and apply methodologies adapted to students' diversity in a bilingual environment.
- Integrate new strategies, materials and technologies to the different activities in the bilingual English/Spanish classroom.
- Practice and acquire the needed skills to reach level C1 in the English language.
- Know and apply the advantages of the communicative and task based approach in the linguistic interaction both in English and Spanish.
- Know the curricular elements, methodology and objectives of the Arts Education field in a bilingual environment;
- Understand how to adapt contents to students' diversity;
- Comprehend the use of the most appropriate teaching techniques for the field.

2. CONTENTS

2.1. Previous requirements:

Demonstrate enough performance at level B2 in English.

2.2. Description of contents:

This course presents the set of knowledge, strategies and methodologies to permit the student to be able to teach the Technology area subjects in a bilingual environment. Some aspects will be developed in order to know the contents of the subject, the resources used in the area such as materials and different spaces to work. A special attention to the Project Method will be carried out as the basis for the development of theoretical and practical works in the area of Technology. The course is spread over 6 modules, in which each module has 2 units. The units refer to several topics related to Technology Teaching, Didactics and methodologies and general topics to teach in the Technology classroom under the standpoint of Technical developments, programming and robotics.

2.3. Detailed content:

Module 1: Approach to Technology Learning Area
This module is based in the knowledge of the Spanish education law, paying special attention to those decrees to develop the curricular contents

- Unit 1: Technology in Spanish Compulsory Secondary Stage
- Unit 2: Technology in Baccalaureate and Vocational Training

Module 2: Pillars of bilingual Technology Teaching
This module shows the amin methodologies applied in a bilingual technology classroom.

- Unit 3: CLIL Approach to Technology
- Unit 4: The Project Method and Project Based Learning

Module 3: Learning Pedagogical Resources
This module describes some innovative learning methodologies focused to the teaching of Technology

- Unit 5: Innovative Learning
- Unit 6: Learning through Teamwork

Module 4: The resources to teach Technology
In this module the main resources in a technology department are described and represented, to allow the students to understand what materials and equipment is needed in the technology classes, workshop and computers room.

- Unit 7: Technology working areas
- Unit 8: ICT specific tools in Technology

Module 5: Hardware Technologies
In this module, some of the most important teacher skills and knowledge in the area of hardware is developed.

- Unit 9: Electricity and Electronic workshop resources
- Unit 10: Robotics and 3D printing

Module 6: Software Technologies
In this module, the use of ICT is described to future teachers to know about free software solutions as well as Web developments.

- Unit 11: The use of software in Technology: Free Software, operating systems and programming
- Unit 12: The Web and development of web resources

2.4. **Assign**

mentsBlend

Assignments	Hours	Percentage of attendance
AF1. Teaching sessions	24	16%
AF2. Learning activities, individual and in groups, outside the lecture session	42	28%
AF3. Tutorials (face-to-face and/or at a distance, depending on the modality)	30	20%
AF4. Complementary training actions	24	16%
AF7. Evaluation Activities	30	20%

Online modality:

Assignments	Hours	Percentage of attendance
AF1. Teaching sessions	24	16%
AF2. Learning activities, individual and in groups, outside the lecture session	42	28%
AF3. Tutorials (face-to-face and/or at a distance, depending on the modality)	30	20%
AF4. Complementary training actions	24	16%
AF7. Evaluation Activities	30	20%

2.5 Methodology

An active didactic methodology in which the student is the protagonist of their own learning process, and the teacher an expert in the field. The teacher will possess the knowledge of the materials and resources necessary to help the student in the learning process and to optimise their learning strategies. Through interaction and mutual co-operation the student will achieve the competencies that they can then incorporate within their professional profile.

The teaching methodology will combine real-life and online teaching in the semi-present mode and online teaching in the online mode. This is therefore a mixed methodology that will be supported by the use of ICT as well as collaborative work (forums, chats, video-conferences) in accordance with the teacher's tools (agenda, announcements, files of materials, and links). For this purpose, the Virtual Campus will be used with the Blackboard Ultra platform. This interactive methodology requires the systematic and continuous active participation of the students and teachers.

3. EVALUATION SYSTEM:

3.1 Grading:

The grading system is as follows:

0 – 4.9 Fail (SS)
5.0 – 6.9 Pass (AP)
7.0 – 8.9 Good (NT)
9.0 - 10 Excellent (SB)

3.2 Assessment

Ordinary or Extraordinary Calls (Blended and online Modalities)

Assessment	Percentage
Participation in working and discussion groups	15%
Activities (critical reading of texts, book reviews)	25%

4. Plagiarism:

You are required to develop the proposed activities yourself. Plagiarism (illegal and unauthorized copying) will be penalized with a zero grade (0). Nebrija University will treat cases of plagiarism very seriously. Plagiarism includes, but is not limited to: using someone else's (Internet, books, classmates, etc.) ideas or words without appropriate acknowledgement. All suspected cases of academic dishonesty will follow the procedures outlined in the Reglamento del Alumno (Universidad Nebrija).

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6. PROFESSOR

All information on the teaching staff can be found in the official Web of the Master in Bilingual Education:https://www.nebrija.com/programas-postgrado/master/ensenanza-bilingue-profesores/#masInfo#profesores