Competency-based Instructional Design: The key to the Success of a Hybrid Program

Pedro J. Lara
Universidad Europea
HYBRID PEDAGOGICAL MODEL

Philosophy

Faculty

Evaluation

Development and Resources

Implementation Plan
The process has as reference the **student experience**. As a result, all degree programs will establish an **implementation plan** that will be determine the modality of each of its subjects.

The **curricular design** of the courses will be based on **competency development** and subsequently, **learning outcomes**.

Instructor **flexibility** and **autonomy** at the time of teaching.

**Academic expertise**: authors, instructors, and other supporting roles in the teaching and learning process.
# 1. Student experience

## Hybrid experience:
- Transparent
- Progressive
- Participative
- Collaborative

### Implementation plan/hybridity per program

<table>
<thead>
<tr>
<th>MODALITY</th>
<th>CURSO</th>
<th>1º</th>
<th>2º</th>
<th>3º</th>
<th>4º, 5º, 6º</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLENDED</td>
<td></td>
<td>0-2</td>
<td>0-2</td>
<td>1-3</td>
<td>1-3</td>
</tr>
<tr>
<td>ONLINE</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1-2</td>
</tr>
</tbody>
</table>

6-10 courses of 6 ECTS per program

### COURSE

- **1º**
  - 36 h face-to-face
  - 36 h online
- **2º**
  - 24-36 h face-to-face
  - 48-72 h online
- **3º, 4º, 5º**
  - 0-24 h face-to-face
  - 48-72 h online

### MODALITY

<table>
<thead>
<tr>
<th>CURSO</th>
<th>1º</th>
<th>2º</th>
<th>3º</th>
<th>4º</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLENDED</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>ONLINE</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**1º**
- Ethics and Personal Efficacy
  - Or equivalent

**2º**
- Influence and Relational Impact
  - Or equivalent

**3º, 4º, 5º**
- Entrepreneurial Leadership
  - Or equivalent

**1º**
- + 0-1 de la program
- + 0-1 de la program

**4º, 5º, 6º**
- + 1-2 de la program
- + 2-3 de la program
2. Curricular Design: Based on Competency Development

**Competency**
- Expresses what a student should know, understand and be able to do

**Learning Outcomes**
- Appropriate levels and expected outcomes of the teaching-learning process

**Learning Unit**
- A unit of instruction with indications that guide students in the execution of learning activities for the achievement of a particular competence.

**Learning Experience**
- Situation intentionally designed to promote meaningful and inclusive learning in the student.

**Instructional design**
- Planning of learning experiences

**Evaluation**
- Process with the objective to follow up on the student’s learning process making him aware of his progress and generating evidence of the achievement of the learning objectives

**Evidence**
- Everything generated during evaluation that demonstrates if a student has reached or not a learning outcome

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### Examples of Learning Experiences

<table>
<thead>
<tr>
<th>Student autonomy</th>
<th>Reading +</th>
<th>Videos +</th>
<th>Demo +</th>
<th>Case studies +</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Individual or group work +</td>
<td>+ Group work +</td>
<td>+ Exercises +</td>
<td>+ Simulation +</td>
<td></td>
</tr>
<tr>
<td>+ SE</td>
<td>+ Debate/forum +</td>
<td>+ Lab +</td>
<td>+ Debrief +</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+ SE</td>
<td></td>
</tr>
</tbody>
</table>

**Level of interaction with the instructor**

- [ ]
2. Curricular Design: Based on Competency Development

1. Check that the level is adequate: e.g. in first courses (know, understand, apply) and in more advanced subjects (analyze, synthesize, generate).
2. Learning outcomes that combine the three levels (cognitive, subjective and psychomotor).
3. Align with the students' prior knowledge
4. Pay attention to the number: with 6 ECTS, it is reasonable to have 6-10.
5. Determine in which modality (virtual or face-to-face) each is best achieved.
6. Make a first distribution of the student's dedication to each learning result in terms of hours according to the total ECTS of the subject.
7. Verb of action + object of the verb + context:

"The student will be able to evaluate a simple case of language disorder that does not involve other difficulties."
2. Curricular Design: Based on Competency Development

1. Competency

2. Learning outcomes

3. Evidence

4. Learning experiences

5. Support

6. Evaluation

- By the instructor
- Co-evaluation
- Autoevaluation
- External

7. ECTS

General guidelines for authoring and teaching

1. Identify the competency
2. Identify the learning outcome
3. Determine the evidence
4. Design learning experiences, designing instruction based on student autonomy and timing
5. Define monitoring milestones (face-to-face and online).
6. Define the evaluation method
7. Assign ECTS (student dedication)

- Content
- Resources
- Scenario
- Activity

EVIDENCE

- Projects
- Demos
- Essays
- Videos
- Mockups
- Multimedia
- Programs
- ...

ADAPTIVE LEARNING

- OK
- New activity

- NOT OK
- The student...

- Need more information?
- Need more practice?
- Is there an error in the process?
- ¿...?
2. Curricular Design: Based on Competency Development

What type of Instructional design?
- Consistent with learning outcomes, experiences, monitoring and evaluation.
- Sequenced to favor deep learning.
- Distributed in the different scenarios.

What type of support?
Adapted to the level of learning autonomy and sequence of learning and evaluation:
- Learning portfolio: evidence collection
- Feedback and relevant comments;
- Individual / group tutoring, face-to-face or online synchronous;
- Consultations and ad hoc activities, etc.

What type of evaluation?
- Based on evidence.
- Coherent: aligned with expected learning outcomes and methodology.
- Formative: designed to provide constructive feedback to the student.
- Transparent: Clear, accurate and communicated evaluation and qualification criteria.
- Relevance between the importance and the weight of the evaluation of learning outcomes in the Evaluation System.
3. Flexibility in curricular management (teaching)

Why flexible?

So that the instructor:

• Makes the subject his/her own;
• Adapts activities, content, resources, Instructional design, support, and evaluation
• To the characteristics of the group and the timing.

CREADIS

What kind of equalization?

C (content) +
R (resource) +
E (Scenario) +
A (activities) +
D (Instructional design) +
S (support)

Personalized by the instructor, consistent with learning outcomes and level required by the subject
4. Areas of Specialization

**Authoring**

**Author:** Designs and generates the document that covers the competencies, the learning outcomes, activities, the monitoring and the evaluation, as well as the necessary resources to carry out the course.

There are three types of authorship:
- General design of the subject;
- Contextualization to the degree or institution;
- Incorporation of improvements after teaching.

**Teaching**

**Instructor:** Instructs the course, based on a predefined sequence, but making modifications as needed depending on context, group of students, timing, ....

**HBO Coordination**

**HBO Coordinator:** Coordinates a degree/program and the transition of the corresponding subjects, ensuring the coherence and the acquisition of the competencies by the students.
Key Aspects

1. Prepare students
   - **Explaining** motivation and the Benefits of hybrid teaching
   - **Guiding** students through the learning process using the new model

2. Use **Communication** tools

3. Use **Support** and **Evaluation** technology
   - Retention Center
   - Course Alerts
   - Dashboard
   - Grade Center

**Teaching flexibility**

- Prepare students
  - Explaining motivation and the Benefits of hybrid teaching
  - Guiding students through the learning process using the new model

- Use **Communication** tools

- Use **Support** and **Evaluation** technology
  - Retention Center
  - Course Alerts
  - Dashboard
  - Grade Center
As many contextualizations as degrees and campuses. Are determined before beginning the one unique design to identify synergies from the beginning and be more efficient. A range is established between 10-30%.
HYBRID PEDAGOGICAL MODEL

Philosophy
Faculty
Implementation Plan
Development and Resources
Evaluation

THANK YOU!

Pedro J. Lara
Universidad Europea
Examples of Competency-Based Instructional Design
<table>
<thead>
<tr>
<th>Competencies</th>
<th>Learning outcomes</th>
<th>Activities</th>
<th>Evidence</th>
<th>Contents</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC 21: Ability to apply technical regulations to the process of building, and generate technical specification documents the procedures and methods of construction of buildings.</td>
<td>LO1: the student will be able to apply the technique to the process of building. LO 1.1: the student will be able to apply the EHE. 08 and the etc to the design of structural elements. LO 3.1.5: the student will be able to pre-size cementing simple elements. LO 3.2.2: the student will be able to check simple cementing elements. LO 3.3: the student will be able to calculate structures.</td>
<td>Project: 3, 4 and 5 delivery: apply the learned in cementing structure proposal. Project: 3 delivery: apply the learned in cementing shallow structure proposal. Project: 4 delivery: apply the learned in deep cementing element structure proposed. Project: delivery 5: apply the learned in the structure of the proposed containment element.</td>
<td>Delivery of a report in pdf that contains the numbers, the rules and the criteria used. Participation in the virtual campus. Exhibition in class on the decisions taken.</td>
<td>Article 8 and EHE 42.08.</td>
<td>Specific video</td>
</tr>
<tr>
<td>LO 1.2: the student will be able to apply the EHE. 08 and the CTE in the execution of structural elements.</td>
<td>Project: final delivery: apply the learned to the generation of memory design and calculation specification.</td>
<td></td>
<td></td>
<td>Article 58 EHE. 08.</td>
<td>PDF + Board + examples</td>
</tr>
<tr>
<td>LO2: the student will be able to generate documents of technical application of procedures and methods of construction of buildings.</td>
<td>LO 2.1: the student will be able to generate memories.</td>
<td>Project: final delivery: apply the learned to the generation of memory project calculation.</td>
<td></td>
<td>Articles 4 CTE-D8-LF-C</td>
<td>instructional video</td>
</tr>
<tr>
<td>LO 2.2: the student will be able to generate quotes with different degrees of precision of cementing and structures to meet the most common conditions to his hiring.</td>
<td>Project: final delivery: apply the learned, generating the project budget.</td>
<td>Delivery in pdf of the final budget for the application of the cementing chosen in the project. Can be done in Presto.</td>
<td></td>
<td>Article 69, EHE 70.08. Articles 4, 5, 6 ETC-DB-C</td>
<td>PDF</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Collection of examples</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Multimedia Content</td>
<td></td>
</tr>
</tbody>
</table>
### Competency-based Instructional Design (Example)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Learning outcomes</th>
<th>Evidence</th>
<th>Instrument</th>
<th>Evaluation form</th>
<th>Type of evaluation</th>
<th>%</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: 1 delivery</td>
<td>1.1: Apply the learned in designing the fieldcampaign of geotechnical study of the proposed project.</td>
<td>self-evaluation survey conducted</td>
<td>questionnaire</td>
<td>self-assessment</td>
<td>not evaluated</td>
<td>0%</td>
<td>quantitative</td>
</tr>
<tr>
<td></td>
<td>LO: 3.1.1 Meet the different soil types as well as their mechanical parameters and physical properties.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>get a note higher than the 5.0 in the theoretical survey</td>
<td>questionnaire</td>
<td></td>
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<tr>
<td></td>
<td>LO 4.1: the student will be able to understand and interpret a geotechnical study and develop conclusions of design, calculation and execution from the same.</td>
<td>Delivery of a pdf report containing the steps followed, the rules and the criteria used, study with the disposition of recognition points.</td>
<td>project rubric</td>
<td>heteroavaliação + coavaliação</td>
<td>formação, the note of the partial deliveries can be retrieved in the delivery end, if are are worked to improve aspects indicated by feedback</td>
<td>5%</td>
<td>quantitative and qualitative</td>
</tr>
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<td>Participation in the virtual campus.</td>
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<td>Exhibition in class on the decisions taken.</td>
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