ERASMUS+ CBHE PROJECT

Reinforcing Non-University Sector at the Tertiary Level in Engineering and Technology to Support Thailand Sustainable Smart Industry

Co-funded by the
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Innovative Teaching and Learning Methods

Objectives

This module aims at developing the following competences:

1. Select and use appropriately a range of innovative teaching and learning methods in practice.
2. Create constructive alignment between intended learning outcomes, innovative teaching methods and assessment.

Learning Outcomes

Upon the completion of this module, the trainees will be able to:

1. Reflect on the strengths and weaknesses of their own pedagogical practice in order to understand it better.
2. Show understanding of how to use innovative teaching methods and technologies for different purposes.
3. Show understanding of current theories of learning including behaviourism, cognitivism, constructivism, and experimentalism.
4. Apply teaching interventions in specific practice contexts drawing on learning theory and pedagogical knowledge.
5. Develop a suite of innovative teaching tools, assessment methods, resources and technologies for use within one's own teaching.
6. Demonstrate positive and critical attitudes towards teaching innovation and enhancement.

Prerequisite: None

Outline:

- **Introduction to Reflective Practice, rationale and relevance to innovative teaching.**

- **The hallmarks of innovative teaching and learning.**
    - Creating Effective Learning Communities
    - Learner-centered environments
    - Knowledge-centered environments
    - Assessment-centered environments
    - Community-centered environments

- **Innovative teaching methods in the university classroom**
    - Backward design
    - Flipping the classroom
    - Team-based learning

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- o Just-in-time teaching
- o Blended and online teaching
- o Group-work – using collaborative learning strategies effectively
- o Technology assisted teaching and learning
- o Integrating assessment of, for and as learning strategies

- **Learning Theories**
  - o Origins, focus, scope, relevance and limitations of different learning theories
  - o Case studies of application of learning theories in the university classroom

- **Application of Innovative Teaching and Learning Methods through Peer Teaching in Microteaching Context**
  - o Plan
  - o Teach
  - o Review
  - o Reflect
  - o Re-teach

Learning Activities:

- Short lectures
- Class discussion
- Group discussion
- Group work
- Video Analysis
- Games
- Oral presentation
- Microteaching

Time Distribution and Study Load:

- Training: 15hours
- Coaching: 30 hours
- Microteaching Preparation and Reflection: 80 hours

Assessments:

- Group presentations
- Minute papers
- Role play
- Group discussions
- Wiki
- Concept mapping
- Analysis of case studies

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- Microteaching
- Reflective Journal

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