Module specification:

This module aims to provide engineering students with an understanding of the importance of innovation in today's business environment. The module aims to also develop understanding and skills in the area of innovation management. It aims to develop practical skills for students to integrate a number of themes including foresight, knowledge management and a cooperation overview enabling them to successfully exploit new ideas. Another important element of the subject design is its emphasis on learning through fieldwork assignments rather than relying on classroom teaching.

Course Outline:

1. Technological innovation
2. Innovation strategies
3. Management teams for innovation
4. Foresight and technological surveillance systems
5. Technology audits
6. Knowledge protection
7. Selection and management of innovation developments
8. Technology Transfer and Cooperation
9. Innovation Systems
10. R&D programs and standardisation

Learning Outcomes:

On completion of the course students will be:

- Able to design and implement innovation strategies in organisations, corporate foresight and technology with the aim of detecting sources of competitive advantage for evaluating and selecting R&D proposals.
- Able to manage innovation activities (new product and process development) for decision making, management and early cancellation.
- Acquainted with the principles of management multidisciplinary human teams for innovations
- Aware of the innovation systems and public programs underpinning technology cooperation agreements with different actors and know how to use external funds.

Teaching activities: Lectures (75%), tutorials on problem solving and case study analysis (25%).

Assessment: Coursework (40%) and a final exam (60%).

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