

Environmental engineering : Current methods and practices

Lecturer

Michel VERBANCK (Coordinator)

Course mnemonic

CHIM-H520

ECTS credits

3 credits

Language(s) of instruction

English

Course period

First term

Course content

Environmental engineering : Current methods and practices (see details provided below)

Objectives (and/or specific learning outcomes)

The aim is to further strengthen the training of chemical engineers (Materials science and Process Technology engineers) in an area which has considerably expanded recently in terms of scope, economic activity and societal importance. And in which they themselves will play a significant role in the exercise of their professional activity.

Teaching method and learning activities

For this course unit there are two learning activities. The first one is proposed as ex-cathedra lectures: its specific aim is to show to the students what are the current methods and practices in the day-to-day environmental management, for instance in the case of contaminated sediment remediation. A strong emphasis is provided to the methodological tricks which allow to save money in the pursuing of the total engineered solution. The second learning activity is taking the form of a specialised workshop held and organized by the students themselves at the end of the quadrimester. Each student works on a relatively narrow aspect of a "hot" environmental engineering topic having emerged in the last two calendar years. For the workshop each student has, firstly, to file a written extended abstract with references and, secondly, to contribute orally with display of a 20-minute PowerPoint diaporama presentation.

Contribution to the teaching profile

This teaching unit contributes to the following competences:

- > In-depth knowledge and understanding of exact sciences with the specificity of their application to engineering
- > Consciousness of the ethical, social, environmental and economic context of his/her work and strives for sustainable solutions to engineering problems including safety and quality assurance aspects
- > The flexibility and adaptability to work in an international and/or intercultural context
- > An integrated insight in chemical process and materials' technology
- > Insight in chemistry as a link between process and materials technology

Other information

Contact(s)

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Evaluation method(s)

Other

Evaluation method(s) (additional information)

Personal work + Oral exam

Determination of the mark (including the weighting of partial marks)

25% for the personal contribution to the science Workshop organized in December. 75% for the oral exam in January.

Main language(s) of evaluation

English

Programmes

Programmes proposing this course at the Brussels School of Engineering

MA-IRMA | Master of Science in Chemical and Materials Engineering | finalité Professional/unit 2