

Project : Process technology

Titulaires

Michel VERBANCK (Coordonnateur) et Gert DESMET

Mnémonique du cours

PROJ-H404

Crédits ECTS

5 crédits

Langue(s) d'enseignement

Anglais

Période du cours

Deuxième quadrimestre

Contenu du cours

Avec l'aide du coordinateur, les étudiants réalisent en cours d'année un travail personnel dont la thématique touche à la protection de l'environnement (contrôle de la pollution à la source, techniques de dépollution) et faisant appel à diverses disciplines de la filière Chimie et Science des Matériaux.

Objectifs (et/ou acquis d'apprentissages spécifiques)

Etablir de manière active (travail personnel sur une question donnée) un lien entre les diverses matières enseignées. Sensibilisation à la problématique de la protection de l'environnement et du développement durable.

Méthodes d'enseignement et activités d'apprentissages

Contribution au profil d'enseignement

This teaching unit contributes to the following competences:

- > In-depth knowledge and understanding of exact sciences with the specificity of their application to engineering
- > In-depth knowledge and understanding of the advanced methods and theories to schematize and model complex problems or processes
- > Reformulate complex engineering problems in order to solve them (simplifying assumptions, reducing complexity)
- > Conceive, plan and execute a research project, based on an analysis of its objectives, existing knowledge and the relevant literature, with attention to innovation and valorization in industry and society

- > Correctly report on research or design results in the form of a technical report or in the form of a scientific paper
- > Present and defend results in a scientifically sound way, using contemporary communication tools, for a national as well as for an international professional or lay audience
- > Collaborate in a (multidisciplinary) team
- > Develop, plan, execute and manage engineering projects at the level of a starting professional
- > Think critically about and evaluate projects, systems and processes, particularly when based on incomplete, contradictory and/or redundant information
- > A creative, problem-solving, result-driven and evidence-based attitude, aiming at innovation and applicability in industry and society
- > A critical attitude towards one's own results and those of others
- > 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 attitude of life-long learning as needed for the future development of his/her career
- > An integrated insight in chemical process and materials' technology
- > Insight in chemistry as a link between process and materials technology

Autres renseignements

Contact(s)

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Méthode(s) d'évaluation

Autre

Programmes

Programmes proposant ce cours à l'école polytechnique de Bruxelles

MA-IRMA | Master : ingénieur civil en chimie et science des matériaux | finalité Spécialisée/bloc 1