

SYLLABUS

Course title:

Environmental Technologies - Water & Sustainable Development

Course code:

ETE6050

Offered in the term:

Summer 2019

Number of credits:

3

Schedule:	9:00 am – 12:00 pm 1:30 – 4:30 pm	Dates:	June 03, 2019 to June 12, 2019	Room:	5413
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LEADING PROFESSOR

Patrick Drogui

OTHER PARTICIPATING PROFESSORS WHEN APPLICABLE

Jean-François Blais, Satinder K. Brar, Gerardo Buelna, Hubert Cabana, Yves Comeau, Jean-Jacques Drieux, Sophie Duchesne, Patrick Drogui, Langlois Valérie, Banu Örmeci, Manuel Rodriguez, Sébastien Sauvé, Rajeshwar D. Tyagi, Peter Vanrolleghem

COURSE OVERVIEW

This course in Environmental Technologies - Water & Sustainable Development presents current and emerging major environmental issues through research and industrial perspective.

Four themes will be covered in the course:

(1) Pollutants Modelling and Monitoring, (2) Drinking Water, Treatments, and Land Use Planning, (3) Industrial Waste Water Treatments, (4) Decontamination and Biotechnology, (5) Resources Recovery, and (6) Emerging Contaminants.

LEARNING OBJECTIVES

The course objective is to familiarize the students with different aspects of environmental technologies for application to real problems of waste water and effluent management and decontamination.

COURSE CONTENT

	Schedule	Professors	Number of hours
Chapter 1.1 Pollutants Modelling and Monitoring	Monday 03/06 9:00 am – 12:00 pm	Peter Vanrolleghem	3
Chapter 1.2 Pollutants Modelling and Monitoring	Monday 03/06 1:30 – 4:30 pm	Peter Vanrolleghem Sophie Duchesne	3
Chapter 2.1 Drinking water, Treatments, and Land Use Planning	Tuesday 04/06 9:00 – 10:30 am	Manuel Rodriguez	3
	10:30 am – 12:00 pm	Patrick Drogui	
Chapter 3.1 Industrial Waste Water Treatments	Tuesday 04/06 1:30 – 4:30 pm	Patrick Drogui	3
Practical exercises on an industrial issue	Wednesday 05/06 9:00 am – 12:00 pm	Jean-Jacques Drieux	3
Chapter 4.1 Decontamination and Biotechnologies	Wednesday 05/06 1:30 – 4:30 pm	Jean-François Blais	3
Chapter 4.2 Decontamination and Biotechnologies	Thursday 06/06 9:00 am – 12:00 pm	Rajeshwar D.Tyagi, Banu Örmeci	3
	Thursday 06/06 1:30 – 4:30 pm		Free time
Chapter 5.1 Resources Recovery	Friday 07/06 9:00 am – 12:00 pm	Yves Comeau	3
Chapter 6.1 Decontamination and Biotechnologies - Analytical methods for refractory emergent compounds and ecotoxicology	Friday 07/06 1:30 – 3:00 pm	Gabriel Munoz (replacing Sébastien Sauvé)	3
	3:00 – 4:30 pm	Lucie Baillon (replacing Valérie Langlois)	
Chapter 6.2 Emerging Contaminants - Monitoring and Treatment	Monday 10/06 9:00 – 10:30 am	Hubert Cabana	3
	10:30 am – 12:00 pm	Satinder K. Brar	
Chapter 4.3 Decontamination and Biotechnologies	Monday 10/06 1:30 – 4:30 pm	Gerardo Buelna	3

Students presentations Chapter 1	Tuesday 11/06 9:00 am – 12:00 pm		3
Students presentations Chapter 2	Tuesday 11/06 1:30 – 4:30 pm		3
Students presentations Chapter 3	Wednesday 12/06 9:00 am – 12:00 pm		3
Students presentations Chapter 4	Wednesday 12/06 1:30 – 4:30 pm		3

COURSE MATERIAL AND APPROACH

Theoretical courses will be prepared in PowerPoint and provided to the students.

EVALUATION

Evaluations will take the form of student presentations for each of the major chapters covered in the course. The presentations will focus on resolving an industrial/applied issue related to the chapter evaluated.