

**"FUNDAMENTALS OF SITE REMEDIATION"
(EESD15H3-F L30)**

Instructor: Dr. Silvija Stefanovic

Lecture: Friday 12 3pm; MW110

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Intent of the course:

This course consists of a study of the ways in which hazardous organic and inorganic materials can be removed or attenuated in natural systems. The theory behind various technologies, with an emphasis on bioremediation techniques and their success in practice. An introduction to the unique challenges associated with the remediation of surface and ground water environments, soils, marine systems, and contaminated sediments.

Prerequisite: Students must have successfully completed BIOA01H3 & BIOA02H3 & CHMA10H3 & CHMA11H3 & [PHYA10H3 or PHYA11H3]

Suggested readings:

for Soils and Groundwater Task Committee of the Environmental Council, Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers ; edited by Alok Bhandari ... [et al.].Reston, Va. : American Society of Civil Engineers, c2007.

Lecture notes:

The lecture slides will be posted in *.pdf format on Quercus. You will require Adobe Reader to open the files (available free of charge at www.adobe.com).

Course email policy:

Email is not an effective way of teaching and email inquiries regarding course materials will not be answered. Dr. Stefanovic will be available during designated office hours to answer questions regarding course material. If you have questions, then please see instructor during office hours this time is for you so please do not hesitate to use it. Course TA will also be available during his designated office hours and he will respond on the emails pertaining assignments.

Grading:	Assignments (2):	20% (2x10%)
	Seminar:	10%
	Midterm	15%
	Project Presentation:	10%
	Project Report:	10%
	Participation:	5%
	Final Exam:	30%

Assignments:

You will have problems to solve for each of two group assignments (maximum two students in the group). You will be able to access the problem sheets on the Quercus at the times detailed below. More details on the assignments will be circulated during the term.

Topic	on Quercus	Due date
Assignment #1	Oct.4 th	Oct. 25 th
Assignment #2	Nov.8 th	Nov. 22 nd

Seminar:

You will be assigned a specific type of contaminants and you will need to present its chemistry, sources, fate, and toxicology during short in class presentation (15min). This is a group seminar with 2-3 students per group. Topics will be given during the first lecture. One page Summary plus references and Power Point slides to be sent to instructor before the presentation. Failing to submit the summary and slides will result in mark deduction of 5% per day. After the presentations the rest of the students will need to submit hand written summaries for the participation mark. More information will be circulated in the class.

Midterm:

The 1 hour multiple choice questions midterm examination is worth 15% of the final grade for the course. The midterm exam will draw from a lecture notes and any material priority presented in the classroom. Information from the readings and other resources not directly covered in class will not be tested on exams. More details about the exams will follow.

Final Project Presentation/Report

You will be assigned a real remediat9124B plus 6s7e1 5 Qq0.00000912 0 6120 G[(e)4(x)9(a) the 27.171 5 Qq0.0000026

