



**Grading:**

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|---|-------------|
| Assignments (2):                        | 20% (2x10%) |
| Online Midterm Test:                    | 20%         |
| Project Presentation:                   | 10%         |
| Project Report:                         | 15%         |
| Online Final Exam:                      | 30%         |
| Field Trip Attendance and Participation | 5%          |

**Assignments:**

You will have two problem sets to solve and submit on Quercus individually or in pairs (maximum two students).. 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.

| <i>Topic</i>  | <i>on Quercus</i>                    | <i>Due date</i>                     |
|---------------|--------------------------------------|-------------------------------------|
| Assignment #1 | Friday Oct. 1 <sup>st</sup> at 10am  | Friday Oct. 22 <sup>nd</sup> at 5pm |
| Assignment #2 | Friday Nov. 12 <sup>th</sup> at 10am | Friday Nov. 26 <sup>th</sup> at 5pm |

**Online Midterm Test (in class):**

The 1 hour midterm examination is worth 20% of the final grade for the course. The midterm will be online. The exam will consist of Fill in the Blanks, Matching, MCQs, Multiple Dropdowns and True/False questions. The midterm test will draw from a lecture notes and *any* material priory presented in the class. Information from the suggested readings and other resources not directly covered in class will not be tested on the exams.

**The midterm questions and answers will not be available for students to review after the exam.**

The midterm is closed book. In order to uphold the integrity of this course during this time, we will request that you each complete a Midterm Exam Take-Home Honour Pledge Questions (first question is at the beg(c0 G[(the be)6(g)GC8(

At the end of the term you will present your findings during 20min long in class online presentation. A properly working camera and microphone are required. The groups have to send their slides in pdf format to Dr. Stefanovic by Friday at 11:45 pm on the day they are presenting.

After every two presentations, the presenters should initiate discussion on the assigned topics and ask each other at least 5 questions in total (each student one question minimum). These questions should be related to the presented remediation sites. Dr. Stefanovic will act as a moderator during these discussions and she will mark your presentations and questions.

The written final project report is due on Friday Dec. 3<sup>rd</sup> at 5pm on Quercus. Your TA, Bhargav Patel will be responsible to help you with the written project report. More details about the project presentations and report will follow.

### **Final Exam:**

The 2 hour final examination is worth 30% of the final grade for the course. It will be a combination of written (short answer) questions and calculations/problem solving questions. The final exam will draw from lecture notes and *any* material presented in the class. Information from the suggested readings and other resources not directly covered in class will not be tested on exams. More details about the final exam will follow.

### **Field Trip to UTSC Campus Farm**

In class field trip to UTSC Campus farm is planned for Oct. 1<sup>st</sup> (date can vary due to a w

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| <b>7. Thermal methods:</b> Incineration, Thermal desorption, Pyrolysis, Vitrification.<br>Remediation of the soils with excessive pH.   | Oct. 29 <sup>th</sup>      |
| <b>8. ONLINE midterm (in class); Chemical Methods:</b> On site Washing, Oxidation, Reduction; Dechlorination, Electrochemical techniques;   | <b>Nov. 5<sup>th</sup></b> |
| <b>9. Biological method:</b> Biodegradation in pile, Composting, Land farming, Bioventing and biosparging, Biobarriers and biological screens; Phytoremediation; Lagooning. <b>Assignment #2.</b> | Nov. 12 <sup>th</sup>      |
| <b>10. Surface water and marine systems remediation:</b> Oil spills remediation methods.  | Nov. 19 <sup>th</sup>      |
| <b>11. Final Project Presentations</b>  | Nov. 26 <sup>th</sup>      |
| <b>12. Final Project Presentations</b>  | Dec.3 <sup>rd</sup>        |

*I will follow this schedule as closely as possible, but things being what they are, some of these topics may "overflow" over into other time slots.*