INSTRUCTIONAL SUPPORT

1.1 Instructor
Instructor: Alamgir A. Khan, PhD
Office:
Email: akhan@uoguelph.ca
Office hours:

1.2 Lab Technician - Not Applicable

1.3 Teaching Assistants - Not Applicable

LEARNING RESOURCES

2.1 Course Website
Course material, news, announcements, and grades will be regularly posted to the ENGG*6670 Courselink site. You are responsible for checking the site regularly. As per University regulations, all students are required to check their <uoguelph.ca> e-mail account regularly; e-mail is the official route of communication between the University and students.

2.2 Required Resources
No text has been selected for this course.

2.3 Additional Resources

Lecture: Some notes will be made available for this course. Additional supporting information will be posted on Courselink site.

Projects: Download the assignments according to the schedule given in this handout and posted on Courselink.

ASSESSMENT

3.1 Dates and Distribution
The final grade will be determined from the team work submitted to the faculty advisor and course coordinator. The submitted work will be evaluated according to the grading sheets posted on Courselink, with the assessment weighted as follows:
Assignments 50 % Dates TBD
4 Group
2 Individual

Major Project with oral Presentation 30 % Nov. 14 & 21 during class
Topic submitted via e-mail by Sept. 16, 2013

Final Examination 20 % Nov. 28 in RICH 3527 from 13:30 to 15:30 h.

3.2 Course Grading Policies

Passing grade: In order to pass the course, students must obtain an overall grade of 50% or higher for the course work outlined in Section 3.1.

Missed Assessments: When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course in writing, with your name, id#, and e-mail contact. See the graduate calendar for information on regulations and procedures: http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1400.shtml

Accommodation of Religious Obligations: If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor at the start of the semester to make alternate arrangements. See the graduate calendar for information on regulations and procedures for Academic Accommodation of Religious Obligations:

Late Reports: There will be no extension of the deadlines for submissions, except for serious health or compassionate reasons, with the appropriate documentation. Just like the consulting world where projects are not awarded if the proposals are late, a grade of zero will be given for late submissions.

Drop Date: The last date to drop one-semester courses, without academic penalty, is Thursday Oct. 31, 2013. Refer to the Graduate Calendar for the schedule of dates.

3.3 Course Format

The course will be taught in the Learner Based Learning format also known as Problem Based Learning (PBL), where material is understand through the completion of group and individual assignments and subsequent discussion in class. Supporting lectures will be scheduled for Thursdays, with additional PBL work days during the scheduled lectures to permit group activity. The course instructor will be available in the office that day for consultation if needed. It is expected that the average student will spend between 10 to 15 h per week on the course.

Group assignments will be worked on by teams of 2, 3 or 4, based on enrollment. The teams will be decided during the introductory class.

4 AIMS, OBJECTIVES & GRADUATE ATTRIBUTES

4.1 Calendar Description

This course will define the different types of hazardous waste that currently exist and outline the pertinent legislation governing these wastes. Information will be presented on the various ways to handle, treat, and dispose the hazardous waste, including separation, segregation, minimization, recycling, landfilling and chemical, physical, biological and thermal treatment.

A major emphasis of the course will be the selection, design and operation of soil remediation projects.
Case histories will be discussed where possible.

Prerequisite(s): Graduate standing in Engineering or consent of the instructor.

4.2 Course Aims

Course will provide graduate students and practicing engineers the information necessary to identify the different sources and types hazardous waste and suggest solutions as how best to handle and remediate this waste. This includes contaminated sites.

4.3 Learning Outcomes

The University of Guelph Learning Outcomes have a goal to prepare students to deal with open-ended, multi-faceted design problems similar to those that they will encounter as working professionals. This includes critical and creative thinking, literacy, global understanding, communicating and professional and ethical behaviour. Full details can be found on Courselink.

4.4 Instructor’s Role and Responsibility to Students

The instructor’s role is to develop and deliver course material in ways that facilitate learning for a variety of students. Selected lecture notes will be made available to students on Courselink/D2L but these are not intended to be stand-alone course notes. During lectures, the instructor will expand and explain the content of notes and provide example problems that supplement posted notes. Scheduled classes will be the principal venue to provide information and feedback for tests and project.

4.5 Students’ Learning Responsibilities

Students are expected to take advantage of the learning opportunities provided during lectures and tutorials. Students, especially those having difficulty with the course content, should also make use of other resources recommended by the instructor. Students who do (or may) fall behind due to illness, work, or extra-curricular activities are advised to keep the instructor informed. This will allow the instructor to recommend extra resources in a timely manner and/or provide consideration if appropriate.

4.6 Recording of Materials

Presentations which are made in relation to course work-including lectures-cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

5 TEACHING AND LEARNING ACTIVITIES

5.1 Timetable

Lectures: Thursday from 13:30 to 16:30 in RICH 3527

5.2 Lecture Schedule

<table>
<thead>
<tr>
<th>Week No.</th>
<th>Classroom Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>Discuss Legislation: Reg 347, Clean-up Guidelines for Site Remediation, Superfund and Brownfields</td>
</tr>
<tr>
<td>3</td>
<td>Work on PBL project - Brownfield Remediation</td>
</tr>
<tr>
<td>4</td>
<td>Discuss Waste Minimization and PBL Project</td>
</tr>
</tbody>
</table>
5 Work on PBL project - Hazardous Waste Treatment
6 Discuss Hazardous Waste Treatment
7 Discuss Soil Remediation
8 Work on PBL Project - Soil Remediation
9 Discuss Soil Remediation; Erin Brockovich movie
10 Discuss OHS
11 Project Presentation with discussion on landfills
12 Project Presentation with discussion on incinerators

5.3 Student Milestones

<table>
<thead>
<tr>
<th>Week No.</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Confirm scope of final project with course instructor</td>
</tr>
<tr>
<td>3-10</td>
<td>Work on PBL projects and major project</td>
</tr>
<tr>
<td>11-12</td>
<td>Make a 20 minute class presentation on project topic.</td>
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6 ACADEMIC MISCONDUCT

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community - faculty, staff, and students - to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University’s policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. The Academic Misconduct Policy is detailed in the Graduate Calendar.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member.

6.1 Resources

The Academic Misconduct Policy is detailed in the Graduate:
http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1687.shtml

A tutorial on Academic Misconduct produced by the Learning Commons can be found at:
http://www.academicintegrity.uoguelph.ca/

6.1.1 Turnitin

Accounts are available to students on Turnitin to help with the editing of their submissions to ensure that plagiarism did not take place. Go to http://www.turnitin.com/en_us/home and create an account. For Fall ENGG*6670, the Class ID is 6768347. The Class enrollment password will be sent via CourseLink to students enrolled in the course. The School has been assured by the College that Turnitin does not store student work, so please take advantage of this tool when preparing your written submissions.