This course is offered Spring Quarter on the University of Washington, Seattle campus. The purpose of the course is to provide students with a comprehensive understanding of solid waste management from an environmental health perspective.

**Meeting Times and Locations:**

Tuesdays, 1:30 - 4:20 p.m  
T-747 Health Sciences Center

**Instructors:**

**Charles D. (Chuck) Trese**, Senior Lecturer  
Office: E-179 Health Sciences Center  
Phone: +1-206-616-2097  
E-mail: ctrese@u.washington.edu  
Office Hours: 9:30 - 11:00 a.m. and 1:30 - 3:30 p.m. daily, except Tuesdays and Thursdays afternoons. Other times by appointment.

**John Kisel**, Professor  
Office: 4225 Roosevelt, RM 22E8  
Phone: +1-206-543-5111  
E-mail: jkisel@u.washington.edu  
Office Hours: To be arranged by appointment

**Announcements:**

**03/24/11 :: Class Listserv:** A course listserv is available to send messages to all students enrolled in the course. This list is maintained by the Registrar’s Office and is updated every night. This list is used to send announcements to all of the students in the class, and is available to students who would like to send a message to all the rest of the class. Email messages should be addressed to: envh445a_sp11@u.washington.edu.

Send mail to: ctrese@u.washington.edu  
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Spring Quarter 2011
Course Syllabus

Course Description

The purpose of this course is to provide students with a comprehensive understanding of solid waste management from an environmental health perspective. Environmental health is defined in the Washington State Public Health Improvement Plan of 1994 to be:

an organized community effort to minimize the public’s exposure to environmental hazards by identifying the disease or injury agent, preventing the agent's transmission through the environment, and protecting people from the exposure to contaminated and hazardous environments.

Public health, planning, technical, and economic principles will be integrated to provide a broad overview of the solid waste management system, both from a national and regional perspective in Washington. The course will examine the primary functions of an integrated system -- source reduction, recycling and reuse, composting, landfilling and combustion, as well as topics relating to special waste streams in context with the principles of environmental health.

Course Requirements

Exams & Grading:

There will be no examinations in the course, although an occasional pop quiz is possible, even likely if the instructors feel that the students are not fully engaged in the class topic.

- Assignment #1: 12.5% (50 pts)
- Assignment #2: 12.5% (50 pts)
- Assignment #3: 12.5% (50 pts)
- Field Trip Participation: 12.5% (50 pts)
- Paper/Presentation: 25% (100 pts)
- Final Paper: 25% (100 pts)

Assignments:

There will be three assignments due throughout the quarter. Assignments are intended to encourage critical thinking, while practicing skills important to the Public Health professional. All of the assignments will be related to, and are to be incorporated into, the final project paper.

In addition, there will be a number of field trips during which we will be visiting solid waste management facilities. For each field trip, you will be required to turn in a one page “reflections piece” responding to specific questions about the experience.

Course Project:

Students will be split into teams to work on a project characterizing an particular segment of the solid waste stream.

Field Trips:

Several class-time field trips have been scheduled to visit various solid waste handling facilities. Attendance at each will be factored into your final grade. For those unable to attend any or all of the field trips due to scheduling conflicts, special assignments will be available for complete credit upon the student’s request. Dress attire for field trips: jeans, jacket and substantial shoes (i.e. hiking boots).

Materials & Resources:

Most of the course materials can be found on the internet. Additional addresses (URLs) will be provided as appropriate throughout the quarter. Websites of interest include:

Key Links

WA SW Report (latest is 2010)

Additional WA State data
http://www.ecy.wa.gov/programs/swfa/solidwastedata/
King Co. SW Division  
http://your.kingcounty.gov/solidwaste/index.asp

City of Seattle  
http://www.ci.seattle.wa.us/htmlcitizens/garbage.htm

Seattle service areas map  
http://www.wmnorthwest.com/seattle/comguidelines/servicemap.htm

Other Resources

USEPA Homepage  
http://www.epa.gov

EPA Municipal Solid Waste  
http://www.epa.gov/epawaste/index.htm  
http://www.epa.gov/epawaste/nonhaz/municipalmsw99.htm

Washington State Department of Ecology Home Page  
http://www.ecy.wa.gov/

Washington State Department of Ecology - Solid Waste and Financial Assistance  

Washington State Bills and Laws  
Bills - http://apps.leg.wa.gov/billinfo  
RCWs &WACs - http://www.leg.wa.gov/LawsAndAgencyRules/Pages/default.aspx

Public Health Seattle/King County - Solid & Hazardous Waste  

Seattle Public Utilities  
http://www.ci.seattle.wa.us/utilservices/default.htm

CleanScapes (vendor) page  
http://www.cleanscapes.com/index.php

Waste Mgt NW (vendor) page  
http://www.wmnorthwest.com/seattle/index.html


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Course Policies

1. All course assignments must be typed and submitted electronically using the UW Catalyst system to the course drop box (EH 445 Drop Box).

2. The course project will consist of an oral presentation and written paper. Your report will be graded on the substance of your report and on the effectiveness of its organization and presentation. A power point presentation is preferred but not required. Please see me if you need help with making/obtaining overhead transparencies, slides or other visual aids. Regardless of the format, the visual materials (PowerPoint slides, transparencies, pictures, etc.) should be uploaded as a single file to the courses’ Catalyst Drop Box. The final paper should be uploaded in the same manner to a separate file.

3. The University is committed to ensuring facility and program access to students with either permanent or temporary disabilities through a variety of services and equipment. The Disability Resources for Students Office (DRS) coordinates academic accommodations for enrolled students with documented disabilities. Accommodations are determined on a case-by-case basis and may include classroom relocation, sign language interpreters, recorded course materials, note taking, and priority registration. DRS also provides needs assessment, mediation, referrals, and advocacy as necessary and appropriate.

Requests for accommodations or services must be arranged in advance and require documentation of the disability, verifying the need for such accommodation or service. If you would like to request academic accommodations due to a disability, please contact Disabled Student Services, 448 Schmitz, Box 355839, (206) 543-8924, (TTY) 543-8925, uwdss@u.washington.edu. If you have a letter from Disabled Student Services indicating you have a disability that requires academic accommodations, please present the letter to me so we can discuss the accommodations you might need for class.

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## Lecture Topics:

Note: This schedule is still under development and subject to change.

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Date</th>
<th>Topic</th>
<th>Lecturer</th>
<th>Assignment</th>
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</thead>
</table>
| 1           | March 29   | - Introduction & Course Mechanics  
- Solid Waste: Definition & Problems  
- Historical Overview  
- Legal  
- Materials Flow Charts | C. Treser & J. Kissel | Group Project:  
- Assignment of Groups  
- Solid waste stream Characterization  
- Develop flow chart |
| 2           | April 5    | - Solid Waste: Generation, Composition, Collection, Transport, Storage and Disposal  
- Solid Waste Streams: composition and characterization | C. Treser & J. Kissel | Review each of the web sites listed under “key links” in the course syllabus |
| 3           | April 12   | - Collection & Transport                                               | Field Trip: North Seattle Transfer Station | Assignment #1 Due Waste stream characterization flow chart |
| 4           | April 19   | - Disposal: Sanitary Landfills                                         | Field Trip Cedar Hills Landfill | Reflections paper #1 due |
| 5           | April 26   | - Disposal: Incineration                                               | J. Kissel         | Assignment #2 Due Waste stream characterization by the numbers  
Reflections paper #2 due |
| 6           | May 3      | - Alternatives: Recycling                                              | Field Trip Cascade Recycling Center | Assignment #3 Due Waste stream characterization economics |
| 7           | May 10     | - Alternatives: Composting                                             | Field Trip Cedar Grove Composting | Reflections paper #3 due |
| 8           | May 17     | - Waste Reduction  
- Solid waste Economics  
- Public Health Issues & Concerns | C. Treser  
??  
C. Treser | Reflections paper #4 due |
| 9           | May 24     | - Waste Reduction: Recycling & Composting                              | Field Trip UW recycling and composting programs | Charles Easterberg --> for contact information  
Reflections paper #5 due |
| 10          | May 31     | - Student Project Presentations                                        |                   | Waste stream characterization and disposal options |
| 11          | Friday, June 11 | - Final Project Paper                                                 |                   | Final Paper Due |

Send mail to: ctreser@u.washington.edu

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