

**Dr. Tait Chirenje**

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**Meeting times:** 6:00 – 7:50 pm every Tuesday in F 111 (you will be kicked out of this course if you do not attend the orientation session in full).

**Office hours:** MTW 3:30 – 4:30pm or by appointment if these times are inconvenient.

**Text:** Our Global Environment, 6<sup>th</sup> Edition. A. Nadakavukaren, Waveland Press.

**Grading:** Grades will be based on assignments, WebCT discussion, quizzes, case study report, and a final exam.

	<b>% of total grade</b>
Assignments:	10
Final exam:	30
Quizzes:	20
Superfund paper:	20
Discussion and participation:	<u>20</u>
<b>Total:</b>	<b><u>100</u></b>

*Since there is a considerable amount of work in this class, I will drop your lowest quiz, discussion and assignment grades from your class grade. This is the fairest way to reduce the chance of an off-day ruining your course grade.*

### **Objectives and brief description of class**

The main objective of this course is to introduce you to the most common forms of environmental pollution, their health impacts, and sources and persistence in the environment. The course also covers pollution prevention, environmental regulation and remediation of contaminated and/or polluted soils, air and water systems. Case studies will be used (as needed) to demonstrate how different communities have dealt with specific kinds of pollution. Students are required to write a short report outlining a case study (preferably on a superfund site) dealing with pollution of a medium of their choice and how local and federal laws were used in effecting remediation.

### **How to do well in this class**

- a. Attend all classes – each absence is penalized. Also, I sometimes give extra credit problems in class and these extra credit problems can improve your class grade.
- b. Do the assigned readings (narrative notes, discussion articles and text). Quizzes assume knowledge of materials in these readings.
- c. Communicate with me if you are having problems with class material. Do not wait until week 13 to bring this up. It will be too late.
- d. Listen well and take notes during class discussions and/or films/documentaries.
- e. Follow instructions for assignments, discussions and the superfund paper (page and spacing requirements, due dates etc).
- f. Participate; 20% of your grade is based on WebCT discussion and class participation.

- g. Keep up with class work. All tests and quizzes are cumulative. They assume knowledge of material covered from the beginning of class to the date of quiz / test.
- h. Keep me informed if you have a family emergency. Do not wait until week 14 to discuss an issue that came up in week 3 because I will not believe you.

### **TIPS ON KEEPING UP WITH CLASS MATERIAL**

You will find a schedule at the end of this document as well as a table showing most of the assigned readings and discussion article schedule. There is also a calendar on WebCT that discusses what to read and when. My printed notes (on WebCT) also refer to specific sections of your class text and assigned readings. It is important to keep abreast of all of those because it is easy to get lost if you ignore one part. Also, the calendar on WebCT tells you what that particular week's discussion item is and it sometimes has links (highlighted in blue) to the corresponding discussion item (if it is only article) for that week. Usually, those articles are closely related to what we are doing in class. Dizzy from all the places to get reading materials? Please come and see me and I will be happy to go over everything with you.

### **Attendance**

Attendance in GNM 2261 is mandatory (we only have about 14 meetings). Readings, assignments, lectures and quizzes are all very closely related and missing class will place you at a considerable disadvantage. Please check your schedule and make an informed decision about whether you will (realistically) be able to attend and fulfill your obligations in this course or not. Each student is allowed a maximum of TWO absences for the whole semester. However, each of those absences results in a loss of FIVE percentage points (i.e. 10% for the two) on your course grade unless you have a documented valid excuse. Anyone missing more than TWO class meetings will automatically receive an F. Participation is also graded, and disruptive behavior (including noisy cell phones, talking while class is in session and other behavior discussed in your student handbook) will affect your grade. This rule has been necessitated by the breakdown in civility I have noticed in recent years. It is the only way I can spend more class time on *pollution* rather than *handling personalities*.

### **Assignments and late work**

All assignments are due a week after being handed out. For example, an assignment given on Tuesday should be done by the following Tuesday at the time stated on your WebCT calendar. Most assignments and all weekly discussions are to be posted on WebCT. All late work will be ignored. The only exemption applies to real emergencies (with written documentation to support them). The best time to bring up problems with an assignment is before its due date (not during the class period in which it's due).

### **Lab / Field trips and Guest Speakers**

We will not be going on any field trips this semester (meeting time not conducive for this). However, I will bring in at least one guest speaker for some of the topics we will cover.

### **Academic Honesty**

When you enrolled at Stockton, you were asked to read and pledge to abide by Academic Honesty rules. All the assignments and papers that you hand in will be checked for plagiarism using software that the college provides. I will be showing you how to post select assignments through *Turnitin*.

## **Other issues**

**Extra help:** I do realize that some of you may not have good preparation on some of the topics we will cover. I will be working on research projects in the AS building (AS 110) on most days. Hence, I will be able to meet with anyone who may be having problems with class material on campus. I will also be available to help you deal with WebCT. Please do not hesitate to call or email me to arrange a meeting.

**Incomplete grades:** I will only award an “incomplete grade” if you have written documentation from a Student Affairs counselor specifying that he/she recommends the award of such a grade. If you encounter problems that warrant such a grade, e.g. medical or family emergencies, you will need to speak with a counselor and have them email or call me. I will then work with you to ensure that you complete the required coursework and get a fair grade for the course.

I will keep you informed on your progress in the class (through the “My Grade” tool in WebCT). Please check your grades after every assignment or quiz to make sure that they are entered correctly. You have TWO weeks to appeal and/or query a missing grade.

## Schedule

Week	Lecture
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<b>1</b>	<b>Introduction to pollution</b>
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*Assigned reading:* Chapter 2: p39-61 (Pop dynamics) and Chap 3 (Pop control) .  
*Supplementary reading:* Chapter 4: p95-124 (The people food predicament)

<b>2-3</b>	<b>Toxicology and risk</b>
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*Assigned reading:* Chapter 7: p196-233 (Toxic substances)  
*Assigned reading:* Chapter 8: p234-274 (Pests and Pesticides)  
*Supplementary reading:* Chapter 6: p162-195 (Environmental disease)

<b>4,5,6,7</b>	<b>Water pollution</b>
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common water pollutants and their impact on human health and environment  
sources of water pollutants (agriculture, industry, military, municipal wastewater), case studies regulation and prevention of water pollution, common groundwater remediation technologies

*Assigned reading:* Chapter 14: p458-484 (Water resources)  
*Assigned reading:* Chapter 15: p485-535 (Water Pollution)

<b>8,9,10,11</b>	<b>Air pollution</b>
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common air pollutants and their impact on human health and the environment  
sources of air pollutants local and global effects of air pollution (acid rain, greenhouse gases, ozone depleting substances), regulation and prevention of air pollution (local and global)

*Assigned reading:* Chapter 11: p358-390 (The Atmosphere)  
*Assigned reading:* Chapter 12: p391-438 (Air Pollution)  
*Assigned reading:* Chapter 10: p309-350 (Radiation)  
*Assigned reading:* Chapter 13: p439-457 (Noise Pollution)

<b>12, 13</b>	<b>Soil pollution, hazardous waste, and REVIEW</b>
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common soil pollutants and their impact on human health and environment  
hazardous and special waste, waste generation, disposal, regulation and clean-up.

*Assigned reading:* Chapter 16: p536-590 (Solid and hazardous waste)

<b>14</b>	<b>Review / Final Exam</b>
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NOTE:

1. The specific material and sequence of topics are subject to change at the instructor's discretion.
2. This schedule discusses topics and readings from the class text only. Please see the WebCT calendar for all the other assigned readings for discussion and assignments.

Here is the summarized tabulated version of the readings and discussion materials for Fall 07. Note that the date shown in column one is the date on which class meets. Discussions should be posted on the discussion board in the week that they are supposed to be done (before 10pm on the Monday before class, no exceptions). For example, the discussion for Week 2 should be done by Monday evening (Sept 17<sup>th</sup>) and that for Week 3, on Sept 24<sup>th</sup> etc. All late discussions (posted after 10:00 pm) will be ignored. All discussion items are posted at least two weeks ahead of schedule so there is no excuse for not posting them on time. I do not post all discussion articles ahead of time in case I come across a news article I would like to include during the semester.

<b>Week and meeting date</b>	<b>Topic</b>	<b>Assigned readings from class text</b>	<b>WebCT Discussion article (due Monday at 10pm)</b>
1 (Sept 11)	Introduction to pollution	Chapter 2: p39-61 (Population dynamics)	See five papers posted in Week 1.
2 (Sept 18)	Toxicology	Chapter 7: p196-233 (Toxic substances)	The tragedy of the commons and one other article (See week 2)
3 (Sept 25)	Pests and pesticides	Chapter 8: p234-274 (Pests and pesticides)	Discuss "Gimme Green" and the Precautionary Principle (use format in wk 3)
4 (Oct 2)	Water supply and quality	Chapter 14: p458-484 (Water resources)	TBD, see Week 4
5 (Oct 9)	Water supply and quality	Chapter 15: p485-535 (Water Pollution)	TBD, see Week 5
6 (Oct 16)	Water Quality		TBD, see Week 6
7 (Oct 23)	Water Quality/ CWA		TBD, see Week 7
8 (Oct 30)	Air Quality	Chapter 11: p358-390 (The Atmosphere)	TBD, see Week 8
9 (Nov 6)	Air Quality	Chapter 12: p391-438 (Air Pollution)	TBD, see Week 9
10 (Nov 13)	Air Quality	Chapter 10: p309-350 (Radiation)	TBD, see Week 10
11 (Nov 20)	Air Quality	Chapter 13: p439-457 (Noise Pollution)	TBD, see Week 11
12 (Nov 27)	Soil pollution and waste	Chapter 16: p536-590 (Solid and hazardous waste)	TBD, see Week 12
13 (Dec 4)	Soil pollution regulation		TBD, see Week 13
14 (Dec 11)	Review and other issues		None. Prepare for exams