

" Environmental Pollution " **(EES A11)**

Instructor: Dr. Jovan R. Stefanovic

Office: EV 340

Lecture: Thursday 5 – 7pm (AA 112)

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Office hour: Thursdays 4- 5pm (from Jan.16)

Teaching Assistants for the assignment: Yuchao Wan (yuchao.wan@mail.utoronto.ca) and Wai Ying Lam (wy.lam@mail.utoronto.ca)

Teaching Assistant for quizzes: Andrew Apostoli (andrew.apostoli@mail.utoronto.ca)

TAs office and office hours: TBA on Quercus.

Textbook: Hill, Marquita K. (2010). Understanding Environmental Pollution (3rd Ed.). New York: Cambridge University Press.

Specific readings will also be given out for some lectures.

COURSE LEARNING OBJECTIVES:

- Identify a range of human uses of fresh water and their impacts on freshwater environments
- Describe the impacts of human activities on the atmosphere
- Outline Canadian and international responses to protect the atmosphere
- Understand the various categories of waste
- Appreciate the approaches to management of different types of waste
- Discuss energy resources and their environmental impacts
- Outline Canadian and international responses to energy issues

Tentative Course Schedule

Students should note that topics may span more than one lecture period

Week

LECTURE TOPICS

1. **An overview of the course, expectations, and objectives.**

Understanding Pollution

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QUIZ #1

Reading Week

Feb.20th

7. **Midterm Examination** (in- class)..... Feb. 27th

8. **Water Pollution**.....Mar.5th

- Conventional and Priority Pollutants
- Impacts of Pollution on Water Bodies
- The “Nitrogen Glut”
- Basic Concepts of Eutrophication

9. **Water and Wastewater Treatment**Mar.12th

- Drinking water standards
- Drinking Water Treatment Process
- Reducing Point and Non-Point Sources (Treating Wastewater)

10. **Solid and Hazardous Waste**Mar. 19th

- Waste is a sign of inefficiency
- Canada’s Waste Stream
- Waste – Management Hierarchy
- The Fate of Disposed Municipal

If you simply “miss” the mid-term, you will receive a mark of zero for it.

FINAL EXAMINATION

The 2-hour final examination will be held during the final examination period, exact time, date and rooms TBA. The exam is worth 40% of the final grade. It will be a combination of multiple choice and true-false questions. The final exam will be based on selected term material (including textbook readings and lectures).

ASSIGNMENT AND QUIZZES

students are to conduct themselves within class and within the University community at large. Please be advised that misconduct of any form will not be tolerated in this class. This includes plagiarism on quizzes, assignment, and exams, which will be strictly enforced and is easily detected. Please consult the University Calendar for information about grade distribution and academic conduct. All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behavior or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see <http://www.utoronto.ca/academicintegrity/>). If you have further questions regarding what constitutes plagiarism or other academic offenses, feel free to speak with Prof. Stefanovic.

Note: **Check Quercus regularly.** All announcements, lecture notes, and midterm marks and other information will be posted on Quercus.

Other useful books for this course:

“Understanding Global Warming Dire Predictions” Mann, E.M. & L.R. Kump (2008), Pearson Education Canada

“Environmental degradation and the tyranny of small decisions” :Odum, W.E., 1982, BioScience 32, 728-729.

"The human impact on the natural environment": Andrew Goudie, Blackwells, 388 pp.

"Planet under stress": Constance Mungall and Digby McLaren (eds.) For the Royal Society of Canada, Oxford University Press, 344 pp.

"Environmental Science": William Cunningham and Barbara Saigo, Wm. C. Brown Publishers, 622 pp.

"Geosystems": Robert Christopherson, Macmillan, 616 pp.

"Global Environmental issues": Kevin Pickering and Lewis Owen, Routledge, 389 pp.

"Environment": Peter Raven, Linda Berg and George Johnson, Saunders College Publishing, 567 pp.

"Environmental Science", Sixth Edition, Enger, E.D., and B.F. Smith, McGraw-Hill.

Chemistry, 4th Edition by Julia Burdge, 2017, McGraw Hill.