

Lecture 1. Introduction & Logistic.

ATOC 3500 Air Chemistry and Pollution

Meeting Time: Monday, Wednesday, Friday; 12:00 - 12:50 PM; Duane G131

Instructor: Dr. Irina Sokolik
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Office Hours: Monday; 2:00-3:00 PM or by appointment

Required text: Turco, Earth Under Siege, 1997.

On Reserve: Brimblecombe, Air composition and chemistry, 1996.

Advanced text: Seinfeld and Pandis, Atmospheric Chemistry and Physics: From Air Pollution to Climate Change, 1998.

Description:

The goal of this course is to lay out a frame work of principles that can be used to understand air pollution and global change problems. We will start with defining the basic physical and chemical principles governing the natural and polluted atmosphere. Then we will apply them to specific problems related to pollution and global change, such as indoor pollution, urban photochemical smog, acid rain, stratospheric ozone depletion, greenhouse warming and climate forcing due to atmospheric aerosols. The course will also include some elements of air pollution statistics and introduction to the atmospheric chemical transport models.

The course ATOC 3500 includes:

43 lectures; 10 Problem sets; 2 Intermediate exams and 1 Final exam

Grading: grades will be calculated of homework assignments and exams as follows:

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|-------------------------------------|-----|
| Homework (10 Problem sets x4% each) | 40% |
| Exams (2 exams x15% each) | 30% |
| Final exam | 30% |

Homework due dates:

Problem set 1 due **September, 9**

Problem set 2 due **September, 16**

Problem set 3 due **September, 23**

Problem set 4 due **October, 7**

Problem set 5 due **October, 16**

Problem set 6 due **October, 26**

Problem set 7 due **November, 9**

Problem set 8 due **November, 18**

Problem set 9 due **November, 30**

Problem set 10 due **December, 7**