

# ENVIRONMENTAL CHEMISTRY (FCH 510)

Dr. David J. Kieber (Room 417 Jahn)

## Course Syllabus

1. Introduction to aquatic chemistry (Chapter 1)
  2. Thermodynamics/Chemical Equilibrium (Chapter 3)
  3. Kinetics (Chapter 2)
  4. Acid-Base Chemistry (Chapter 4)
  5. The Carbonate System (Chapter 4)
  6. Ionic Interactions, Coordination Chemistry (Chapter 5)
  7. Solubility-Precipitation/Dissolution (Chapter 6)
  8. Oxidation Reduction Chemistry (Chapter 7)
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### Books:

*Water Chemistry*. 1980. V. Snoeyink and D. Jenkins (Orange Bookstore)

*Aquatic Chemistry*. 1996. W. Stumm and J. Morgan (on Reserve in Moon Library)

### Exams:

There will be two exams and a final. Exam 1, Thursday February 14; Exam 2, Tuesday April 2. Final (TBA). Exams from previous years will be on reserve in Moon Library.

### Grading:

**Undergraduate Students:** Exams 30% each, class participation 10%

**Graduate Students:** Exams 20% each, final 25%, participation 10%, term paper 25%

Term papers are due no later than May 2, 2001.

### Office Hours:

Tuesday 1:00-4:00 pm and Thursday 11:00-1:00 pm, Room 417 Jahn

**FCH 510 Environmental Chemistry I**  
**Dr. David J. Kieber**

Problem sets from Snoeyink and Jenkins, Water Chemistry

<b>Chapter</b>	<b>Problems</b>
2	1-3, 5, 6, 8, 10
3	1, 4-14
4	1-11, 15, 16, 18-25 note: For 23e do not use the exact procedure to calculate concentrations
5	2, 3, 5, 7, 8, 10-12
6	1-3, 6, 8-11, 14
7	1, 4a, 5-12, 15a