NYU Tandon School of Engineering  
Department of Civil and Urban Engineering  
Course Outline CE 7373 Environmental Chemistry and Microbiology I  
Spring 2018  
Wednesday 6:00 to 8:30

To contact professor: dolman2000@gmail.com, Phone: 917-502-5784  
Office hours: Wednesday 3:00 ~ 6:00 or by appointment

Course Pre-requisites
Students must have strong background on General Chemistry and Microbiology.

Course Description
The main purpose of this course is to develop better understanding on Water Chemistry and Microbiology.

Course Objectives
Students are expected to:
- Develop a strong foundation on water chemistry and microbiology
- Apply their understanding of the concepts, methods and applications on real situations

Course Structure
Lecture 1: Introduction of Chemistry and Microbiology  
Lecture 2: Reactions in Aqueous Solution and Stoichiometry  
Lecture 3: Chemical Kinetics and Chemical Equilibrium  
Lecture 4: Acid and Base Equilibrium  
Lecture 5: pH and Neutralization  
Lecture 6: Buffers and Titration  
Lecture 7: Mid-Term Exam  
Lecture 8: Solubility Product and Application of Solubility  
Lecture 9: Complexation Reaction  
Lecture 10: Precipitation and Dissolution  
Lecture 11: Oxidation and Reduction Reaction  
Lecture 12: Organic Chemistry  
Lecture 13: General Microbiology  
Lecture 14: Bioassay and Application  
Lecture 15: Final Exam

Readings
The required text for the course is:  
Course requirements

Class participation and attendance are important for this course and will be factored into your final grade. If you fail to satisfy the basic requirements on attendance and class participation, your final grade will be down graded.

Final grade

- Homework and lab reports 20%,
  Homework problem will be assigned regularly. Assignments to be turned in at the beginning of class on the due date, and late submission are not acceptable. No homework may be submitted after an assignment is returned or after solutions are provided. No homework assignments shall be returned to the students.

- Midterm 35% (date will be decided)
  One two hours midterm exams will be given as noted on the exam schedule below. There midterm exams sheets will be returned to the students for review in class.

- Final 45% (date will be decided)
  A two and half hours final exam will be given as determined by the University Final Exam Schedule (noted on the exam schedule below). Final exams sheets will not be returned, but will remain on file in the instructor’s office for a minimum period time. Makeup exams will be given only if prior permission is granted for extreme situations such as valid medical reasons

- Highest score of the Final exam will be awarded A….good luck!

- Any kinds of dishonorable conduct will be “F”