

SYLLABUS 2002
Unit Operations in Environmental Engineering - CE 474/574
Water and Wastewater Treatment - ESR 410/510

Mon/Wed 4:00 -5:50 PM, Room 366 Neuberger Hall

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E-mail: fishw@cecs.pdx.edu **Course Webpage:** <http://www.ce.pdx.edu/~fishw/uo-home.htm>

Office Hours: Mon & Wed 1:00-2:00 PM, or by appointment

Course Content: This is an introductory course on the treatment of public drinking water supplies and municipal wastewater. Although some course material discusses the nature of the contaminants to be removed from these waters, the main focus of the class is on the actual techniques used to treat water or wastewater so that it meets state and federal water quality requirements. The approach of the course is quantitative, however in most cases the mathematics used are ordinary arithmetic and algebraic calculations. Engineering students wishing to receive design credits (2.5) will perform an engineering design project in lieu of the last two problem sets. Specific topics are presented in the schedule on the next page.

Textbook (Required): *Theory and Practice of Water and Wastewater Treatment*, R. L. Droste

Format:

- Lecture and discussion during the class periods.
- Students are expected to complete each reading *before* class, be prepared to complete a short **preparation check** (“prep check”) on the reading at the start of each class, and discuss the material during class.
- The questions for the prep check will be posted on the web in advance so that students can review the questions as a study guide.
- Design Assignments are assigned as homework each week.
- Please refer to the **Course Home Page** on the web for complete information about readings, prep checks, and design assignments.

Grading:

Daily Prep Checks	–	20%
Design Assignments	–	40%
Midterm Exam	–	20%
Final Exam	–	20%

Note that Design Assignments are weighed heavily in the final grade, which should encourage students to keep up with the weekly assignments. The prep checks are also given significant weight to encourage you to read and comprehend every class reading.