PART 1

Introduction/Pollutants
Classes of Pollutants
Classes of Pollutants/Entering routes
Global transport
Toxicity Testing
Fate of Metals
Review

EXAMINATION 1

PART 2

Fate of Organics
Biochemical Effects
Meet in lab (room B309) (D. acute)
Meet in lab (room B309) (acute, cont.)
Physiological Effects
Meet in lab (room B309) (chr., cont.)
Meet in lab (room B309) (chr., cont.)
Physiological Effects
Meet in lab (room B309) (chr., cont.)
Meet in lab (room B309) (chr., cont.)
Review

EXAMINATION 2

PART 3

Interactive effects (S.P.)
Biomarkers (S.P.)
Biological Monitoring (S.P.)
Biological Monitoring (S.P.)
Population Effects (S.P.)
Population Effects (S.P.)
COURSE OBJECTIVES AND GOALS: To familiarize students with the basic principles of ecosystem toxicology through different levels of biological organization.

GRADING: The lecture portion of class will comprise 75% of your overall grade. In this portion, exams 1 and 2 are worth 40% of the final grade (20% each), the student presentation is worth 20% and the final exam is worth 15%. Exams are predominately short essay questions. The final exam will be partially comprehensive.

The laboratory section of the class will comprise 25% of your overall grade. The class will be divided in teams and each team will turn 4 lab reports: 1) Pond Activity, 2) Daphnia Acute Toxicity Test, 3) Daphnia Chronic Toxicity Test and 4) TerrAqua experiment. Each lab report is worth 5% and the final lab examination is worth 5% of the final grade.

FOR GRADUATE CREDIT (ONLY GRADUATE STUDENTS): A term paper is required that is an in-depth review of the primary literature on a toxicologically-related subject to be agreed mutually upon by the student and the instructor. Paper should be 10-15 pages long. Grading for graduate credit: each exam is worth 15% of the final grade (up to 45%), the student presentation is worth 15% and the term paper is worth 15% of the final grade. The laboratory section of the class will comprise 25% of your overall grade. Each lab report is worth 5% and the final lab examination is worth 5% of the final grade.