

## Department of Civil and Environmental Engineering Yoshimura Chihiro

## Aquatic Environmental Science 13. Fate and Transport of Pollutants

- 1. What is pollutant?
  - Major Pollutions in Japan and world
  - Conventional pollutants
  - Emerging pollutants
- 2. Major processes of fate and transport of pollutants
  - Source
  - Transport & Diffusion
  - Speciation & Distribution
  - Stability
  - Bioaccumulation & Bioconcentration
  - How to deal with temporal water quality variation
  - Whole effluent toxicity (WET)
- 3. Toward assessment of health and ecological risks (in appendix)
  - Hazard Identification
  - Determination of endpoint
  - Exposure Quantification
  - Dose-Response Analysis
  - Risk characterization
- 4. Exercise