

Department of Civil Engineering  
2010 Summer Semester  
Yoshimura Chihiro

*Aquatic Environmental Science*

9. Carbon and nutrient dynamics

Outline (21 June 2010)

1. Lecture schedule: Report and presentation
  2. What is mole?
  3. Nutrients and essential elements
  4. Carbon dynamics in aquatic ecosystems
    - River continuum concept
    - Organic matter budget
    - Leaf processing
    - Organic matter sources
  5. Nutrient and phosphorus dynamics in aquatic ecosystems
    - Nitrogen metabolism
    - Nitrification, denitrification, anammox
  6. Lake ecosystems
    - Typical characteristics
    - Thermal stratification
    - Eutrophication
    - Vollenweider model
  7. Exercise
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