



Department of Civil Engineering 2012 Summer Semester Yoshimura Chihiro

## Aquatic Environmental Science

## 14. Microbiology & Management

- 1. Microbiology
  - Overview
  - Role of microbes in nature
  - Microbial loop
  - Major microbes in aquatic environments
  - Metabolism
  - Growth rate and growth curve
  - Methods to detect microbes
- 2. Stoichiometry and Kinetics
- 3. Stable Isotope Ratio
- 4. Management of Aquatic Environment
  - Maintaining natural system and biodiversity
  - Dam management
  - Important components to assess aquatic ecosystems
  - Riverbed geomorphology management
- 5. Exercise
- 6. Closing Remark