

4 July 2014

Department of Civil Engineering  
2014 Summer Semester  
Yoshimura Chihiro

*Aquatic Environmental Science*

**14. Microbiology & Carbon Dynamics**

1. Microbiology
    - Overview
    - Growth rate and growth curve
    - Methods to detect microbes
    - Role and distribution of microbes in nature
    - Major microbes in aquatic environments
    - Metabolism and major biological reactions
    - Microbial loop
  2. Carbon Dynamics
    - Primary production
    - Food chain in lakes and rivers
    - Aquatic organisms and organic matter
    - Decomposition Rate of POM
    - Stratified Eutrophic Lake
    - Anaerobic Digestion
  3. Discussion and Exercise
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