



Department of Civil and Environmental Engineering
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Aquatic Environmental Science

11. Carbon Dynamics & Ecosystem

1. Carbon Dynamics
 - Organic matter in aquatic ecosystems
 - Major carbon cycle in aquatic ecosystems
 - Carbon dynamics in lakes and streams
 - River Continuum Concept
 - Dissolved organic carbon
 2. Fundamentals of Ecology
 - Ecosystem as system
 - Taxonomy and species
 - DNA in recent ecological studies
 - Ecological niche
 - Habitat suitability and species distribution models
 3. Biodiversity
 - Group of organisms
 - Three levels of biodiversity
 - Biodiversity and ecosystem service
 - Species richness
 - Spatial evaluation of biodiversity
 - Disturbance and aquatic communities
 4. Exercise
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