# Assignment 1: Ecosystem Analysis

## Purpose

Analyze a local ecosystem and apply ecological concepts learned in Module 1.

## Tasks

### Part 1: Ecosystem Description (25 points)

Choose a local ecosystem (forest, grassland, wetland, etc.) and describe: - Location and size - Abiotic factors (temperature, precipitation, soil type) - Dominant plant and animal species - Physical characteristics

### Part 2: Food Web (25 points)

Create a detailed food web for your ecosystem including: - At least 10 species - All trophic levels - Arrows showing energy flow - Labels for each trophic level - Decomposers

### Part 3: Energy Flow Analysis (25 points)

Explain: - How energy enters the ecosystem - How it flows through trophic levels - Where energy is lost - Why there are limited trophic levels - Calculate energy at each level (assuming 10% transfer)

### Part 4: Human Impact (25 points)

Discuss: - How humans have affected this ecosystem - Positive and negative impacts - Conservation efforts - Future outlook

## Format

- 4-6 pages, double-spaced
- Include diagrams and images

- Use proper scientific terminology
- Cite sources

## Submission

Submit via Canvas by due date. Include all diagrams and images.