

## **Plants, Protists, and Fungi in the Classroom (699.A) Syllabus**

This is a tentative syllabus. Activities and arrangement may change based on circumstances.

### **Day 1: Monday, August 4, 9 – 4**

- 9:00 Course Introduction: Grading, Assignments, Objectives
- 9:30 Classification Lecture
- 10:00 Caminalcule Lab (Exercise 1 Only)
- 11:00 Protist Lecture
- 12:00 Lunch
- 12:30 Protozoa Micro Labs:
  - How Protists Move and Eat
    - o *Pelomyxa carolinensis*
    - o *Peranema*
    - o Mixed flagellates
    - o *Blepharisma*
    - o *Euplotes*
    - o *Paramecium bursaria* and *caudatum*
    - o *Spirostomum*
    - o *Euglena gracilis*
    - o *Closterium*
  - Protozoa Discovery
  - Protozoa Predation
  - Taxis of Protists
- Start Seeds for “Bean Mass Lab”
- Succession in Manure
- Start Zygosporangium Lab

### **Day 2: Tuesday, August 5, 9-4**

- 9:00 Fungus Characteristics and Classification Lecture
- Fungus Micro Lab
- Yeast Respiration / Food Specificity Lab
- Fungal Foods
- 12:00 Lunch
- 12:30 Fungal Plates
- Zygosporangium Lab (Examine plates from Day 1)
- Yeast Dihybrid Cross
- Fast Plants Germination Lab
- 3:00 Quiz

**Day 3: Wednesday, August 6, 9-4**

- 9:00 Marsilia  
Plant Kingdom: Bryophytes and Pteridophytes  
Lower Plant Micro Lab  
Observation time for ongoing labs  
Visit the Conservatory
- 12:00 Lunch
- 12:30 Plant Anatomy Lecture: Seeds and Roots  
Azolla Symbiosis  
Check ongoing Marsilia, germination, and fungus labs (Pilobolus, Dihybrid Yeast, Fungal Plates, Fungal Food, Zygosporangia, seeds)  
Fern Spore Collection and Growth  
C-fern Sex in a Dish
- 3:00 Quiz

**Day 4: Thursday, August 7, 9-4 (Conservatory)**

- 9:00 Flowers, Fruits, and Reproduction Lecture  
Leaf, Stem Cuttings (Conservatory)  
Leaf Punch Tissue Collection  
Planting Seeds (peanuts, grass, Italian broad bean)  
Flower and Fruit Dissection
- 12:00 Lunch
- 1:00 Plant Anatomy Lecture: Stems and Leaves  
Seed Physiology: Seed Staining  
Dichotomous Keys and Trees  
Tree Rings and Wood  
Observe ongoing labs
- 3:00 Quiz

**Day 5: Friday, August 8, 9-4**

- Terrestrial Ecology Project  
Grass vs Prairie Assessment  
Woodland assessment
- 12:00 Lunch
- 12:30 Recap Labs, Question and Answer  
Exam