

# BIOL 1186L: Principles of Biology I Lab

## Summer Session 2 (7/2/24-8/9/24)

### Randolph College

**Instructor:** Amanda Rumore, PhD

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**Course Description:** Accompanying lab to BIOL 1186S. Laboratory exercises will focus on biological skills and techniques at the organismal level including models of evolution, characteristics of the kingdoms of life and identification of major phyla, plant structure, human physiology, and a survey of ecosystems. Investigative research study design, technical lab skills, graphing and statistical analysis, and scientific writing are emphasized. Lab materials fee required. Credit hours: 1. *One time only. (NS)*

**Lab Materials** (*REQUIRED PURCHASE*): Lab kits must be purchased directly from Science Interactive. The kits will contain all supplies for hands-on labs and access to digital labs. The instructions for ordering are posted on Moodle. **\$134 (kit) + \$29.95 (shipping)**

**Lab Manual:** There is no lab manual for this course. All instructions are available through Science Interactive or posted on Moodle.

**Course Textbook:** There is no required textbook for this course.

#### Grading:

- Lab Exercises (11 total): 55%
- Electrophoresis Lab (1): 5%
- Quizzes: 20%
- Lab Report: 20%

Scale:		B+	87% -89%	C+	77%-79%	D+	67%- 69%	F	<60%
A	>93%	B	83% - 86%	C	73%- 76%	D	63%-66%		
A-	90% – 92%	B-	80% - 82%	C-	70%-72%	D-	60%-62%		

**\*Grades will be rounded at the .5pt (ex: 89.5 → 90%) (89.4 → 89%)**

# SCHEDULE

## Week 1: (available 5/20 – 5/26)

- “Getting Started” – Sci Interactive
- “Lab Safety” – Sci Interactive
- “Using the V-Scope” – Sci Interactive
- “Lab Kit Inventory” – Sci Interactive
- Lab 1: Taxonomy (V-scope, digital)
- **DUE: by 9am Monday, May 27<sup>th</sup>**

## Week 2: (available 5/27 – 6/2)

- Lab X: Prokaryotes (hands-on) – **Lab Report Option 1**
- Lab 2: Protists (V-Scope, digital)
- Lab 3: Fungi (V-scope, hands-on)

## Week 3: (available 6/3 – 6/9)

- Lab 4: Angiosperms: Roots, Shoots, and Leaves (V-scope, hands-on) – **Lab Report Option 2**
- Lab 5: Angiosperms: Flowers and Fruits (hands-on)

## Week 4: (available 6/10 – 6/16)

- Lab 6: Invertebrates: Arthropods, Mollusca, and Echinodermata (digital)
- Lab 7: Invertebrates: Cnidaria, Platyhelminthes, Rotifera, and Annelida (digital)
- Lab 8: Vertebrates (digital)

## Week 5: (available 6/17 – 6/25)

- Lab 9: Homeostasis (hands-on) – **Lab Report Option 3**
- Lab 10: Food Web (hands-on)
- Lab 11: Biomes, Ecosystems, and Habitats (hands-on)
- **ALL LABS DUE BY: 11:59pm on Tuesday June 25<sup>th</sup>**

**Note:** The syllabus is subject to change at the discretion of the instructor.