Course Description: Experiments illustrating the lecture topics discussed in BIOL 1251

Course Objectives
The objectives (goals) of this course for the student:
1. To learn basic scientific thinking and scientific experimental design
2. Use hands-on experiments to understand biological diversity and organismal evolution
3. To study basic structural and functional anatomy and physiology
4. To learn and practice basic scientific writing and creative thinking in biological sciences

Text and Materials
2. LONG Lab Coat: Available in the FDU Bookstore. Missing Lab Coat will result in an absence for that lab
3. Student Dissection Kit: Available in the FDU Bookstore

Grading: Your Laboratory Average/Grade will be calculated based on the following:
Exam #1 (written and practical)-- 30%
Exam#2 (written and practical)-- 30%
Quizzes -- 20%
Lab Assignments and Reports --- 10%
TOTAL =100% TOTAL MAXIMUM LAB POINTS=100

Your Averages will be converted into a Letter Grade based on the following:
A= 100-92 ; A- = 91-89 ; B+ =88-86 ; B= 85-82 ; B- = 81-79 ; C+ = 78-76 ; C=75-72 ;
C- = 71-69 ; D= 68-60 ; F= 59-0

Attendance, Makeup, and Missed Work Policy: Attendance is required. There are no make-up laboratories. If you miss a lab with an acceptable documented medical or other excuse you are still responsible to study the material covered in the missed lab for the quizzes and exams. If you miss a quiz/exam and have a documented medical (or other) excuse, you will be offered a makeup quiz/exam which must be taken within 7 days of your return to class but before the official University grade deadline for this semester. If you miss a quiz/exam and do not have a documented medical (or other) excuse, you will not be offered a makeup and will receive a zero grade.

Lab Assignments
Students are required to complete lab assignments for each lab unless otherwise instructed.
Some lab activities are performed in pairs. You are, however, required to complete lab assignments independently. Assignments are due within one week of the lab. activity.

LABORATORY SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>No.</th>
<th>Topic</th>
<th>Exercises</th>
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</thead>
<tbody>
<tr>
<td>1/24</td>
<td>1</td>
<td>Lab Safety</td>
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<tr>
<td>1/31</td>
<td>2</td>
<td>Microscopy</td>
<td>3 (omit 3.4, 3.5)</td>
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<tr>
<td>2/7</td>
<td>3</td>
<td>Bacteria &amp; Protists I</td>
<td>19.1 A-C, 19.2C1-2, 19.2D1-2</td>
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<td></td>
<td></td>
<td>Slides, 21.4-5, 21.6A, 21.7</td>
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<tr>
<td>2/21</td>
<td>5</td>
<td>Sponges, Cnidarians, Flatworms, &amp; Rotifers</td>
<td>26.1 slides, 26.2A, 26.2B slides</td>
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<td></td>
<td></td>
<td></td>
<td>27.1A,B,C slides, 27.2</td>
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<td>2/28*</td>
<td>6</td>
<td>Segmented Worms, Mollusks, Roundworms, Arthropods</td>
<td>28.1, 28.2A, 29.1A, slides; 29.2</td>
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<tr>
<td>3/06</td>
<td>7</td>
<td>Lab Exam I</td>
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<td>3/13</td>
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<td>No Lab - Spring Recess</td>
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<tr>
<td>3/20*</td>
<td>8</td>
<td>Echinoderms, Invertebrate Chordates &amp; Vertebrates</td>
<td>30.1, 30.2 slides, 31.4</td>
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<tr>
<td>3/27</td>
<td>9</td>
<td>Bryophytes and Seedless Vascular Plants</td>
<td>22.2, 22.4, 23.1, 23.4</td>
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<tr>
<td>4/10</td>
<td>11</td>
<td>Flowering Plant Organization- Stems, Roots, Shoots, Leaves</td>
<td>32.2-4</td>
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<tr>
<td>4/17</td>
<td>12</td>
<td>Human Sensations, Reflexes, Structure/Function Sensory Organs</td>
<td>37, 38.1, 38.2</td>
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<tr>
<td>4/24</td>
<td>13</td>
<td>Human Blood and Circulation</td>
<td>40.1A,C, 40.3A, Daphnia Kit</td>
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<td>5/1</td>
<td>14</td>
<td>Lab Exam II</td>
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- Dissection Kit Needed
**Laboratory Safety Policies**

To increase laboratory safety, SONS has instituted the following policy on lab attire. It will be strictly enforced so that anyone failing to comply with these policies will be forced to leave.

- “No student will be permitted into laboratories wearing shorts, halter tops, open-toed sandals, undershorts, tank tops, and any other inappropriate attire”
- “All students are to purchase a long laboratory coat which can be used for any Biology or Chemistry class which requires a lab- non-majors or majors”.

- In addition all students must wear protective safety glasses at all times when in the laboratory except if otherwise specified or during “lab lecture” as long as no laboratory activities are in progress and if sharp instruments are not being used. Safety glasses will be provided for your use. Please return them at the end of the lab session. If you observe any activity that may present danger please report it to the Instructor immediately.

- **Containers with food or drink** must not be exposed or open in the lab and must not be on laboratory working surfaces.

**Note:** Your Instructor may make minor modifications to this Course of Study/Syllabus at his/her discretion with proper notification to the Student. Any Addendum/a given to the student will be considered the official policy for the course.

**Academic Integrity Policy**

Students enrolled at Fairleigh Dickinson University are expected to maintain the highest standards of academic honesty. Students have the responsibility to each other and to make known the existence of academic dishonesty to their course Instructor, and then, if necessary, the Department Chair, or Academic Dean of their College. Course Instructors have the added responsibility to state in advance in their syllabi any special policies and procedures concerning examinations and other academic exercises specific to their courses. Students should request this information if not distributed by the Instructor. See and read the attached current version of the FDU **Academic Integrity Policy** in full.
ADDENDUM- OUTCOMES ASSESSMENT

Course Objectives

The objectives (goals) of this course are for you to become competent in knowledge of:

1) The scientific method (program outcome #1)
2) Following laboratory/field protocols (program outcome #6)
3) Use of scientific equipment (program outcome #6)
4) Data collection and analysis (program outcomes #5 and #6)
5) Organismic identification (program outcome #7)
6) Organismic classification (program outcome #7)

Teaching Methodologies/Activities

The following will be used to assess student learning:

1. Lab exams and quizzes to assess numbers 1-7 above
2. Lab exercises to assess numbers 1-7 above

Modes of instruction that will be used by the Instructor:
1. Hands-on Demonstration