Office Semester and Year: Spring 2019  
Course & Section: BIOL 1406-81503

Lecture Instructor: FEDERICO “FRED” CUBILLOS  
Contact Info: fredcubillos@dcccd.edu  
Office hours: By appointment ONLY

Lab Instructor: Dr. Yong Suk Cho  
Contact Info: YSCho@dcccd.edu  
Office hours: By appointment.

Last date to withdraw: Thursday, April 17th- Last day to drop a class with a “W”
General Weekly 2019 Spring *Evening* Class Schedule (Tue, January 22nd – Tue, May 14th)

<table>
<thead>
<tr>
<th>SUNDAY</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class type:</td>
<td></td>
<td>Lecture (Fred)</td>
<td></td>
<td>Lab (Dr. Cho)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location:</td>
<td></td>
<td>WH275</td>
<td></td>
<td>SH153</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time slot:</td>
<td></td>
<td>5:40 PM – 8:25 PM</td>
<td></td>
<td>5:40 PM – 8:25 PM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Letter Grade for the Course:*

A = 90 – 100%

B = 80 - 89%

C = 70 – 79%

D = 60 – 69%

F = 59% or below
JANUARY 2019

01 02 03 04

05 06 07 08

09 10 11 12

13 14 15 16

17 18 19 20

21 22 23 24

25 26 27 28

29 30 31

Ch. 1  Lab 1

Ch. 2  Lab 2
FEBRUARY 2019

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>05</td>
<td>06</td>
<td>07</td>
<td>08</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>Ch. 3</td>
<td></td>
<td>Lab 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Ch. 3</td>
<td></td>
<td>Lab 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Exam 1 (1-3)</td>
<td></td>
<td></td>
<td>Lab 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Ch. 6</td>
<td></td>
<td></td>
<td>NO LAB!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun</td>
<td>Mon</td>
<td>Tue</td>
<td>Wed</td>
<td>Thu</td>
<td>Fri</td>
<td>Sat</td>
</tr>
<tr>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>03</td>
<td>04</td>
<td>05</td>
<td>06</td>
<td>07</td>
<td>08</td>
<td>09</td>
</tr>
<tr>
<td></td>
<td>Ch. 4</td>
<td></td>
<td>Lab 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Spring Break!</td>
<td></td>
<td>Spring Break!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Exam 2 (6 &amp; 4)</td>
<td></td>
<td>Lab 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Ch 5 &amp; 7</td>
<td></td>
<td></td>
<td>Lab 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APRIL 2019

- **01**: Ch. 7 & 8
- **02**: Ch. 8
- **03**: Lab 9
- **04**: Lecture in lab
- **05**: 
- **06**: 
- **07**: 
- **08**: 
- **09**: 
- **10**: 
- **11**: 
- **12**: 
- **13**: 
- **14**: Exam 3 (5, 7 & 8)
- **15**: 
- **16**: 
- **17**: Lab 10
- **18**: 
- **19**: 
- **20**: 
- **21**: 
- **22**: Ch. 10 & 11
- **23**: 
- **24**: Lab 11
- **25**: 
- **26**: 
- **27**: 
- **28**: 
- **29**: Ch. 11 & 12
- **30**: 
- **31**: 

- **Sun** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat**
## May 2019

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>02</td>
<td></td>
<td></td>
<td>03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lab 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>06</td>
<td>07</td>
<td>08</td>
<td>09</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Ch 14 &amp; 15</td>
<td></td>
<td></td>
<td></td>
<td>Lab 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FINAL EXAM</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(COMPLETE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>
Evaluation Procedures (each part of the course would have a maximum 100 points possible – e.g. 100 points is a perfect score for the Final):

- 30% = Online Homework Average (E-campus)
- 20% = Comprehensive Final
- 10% = Written Lab Report
- 5% = Lab Quiz Average
- 5% = Prelab Average
- 30% = Mid-term exam Average (I, II & III)

100% of total class grade

Using a student example (see chart below)

Once each part of the course is graded (see middle column below), then that grade is multiplied by the percentage (please see the third column on the right-hand side below). After each weighted part has been calculated, then those weighted parts are added together for the final score (please see at the bottom of the third column). The final letter grade at the end of the semester will be determined by this final score. The student below received a 90 for the course and therefore would receive an “A” for the course letter grade.

Please realize that this calculation is a WEIGHTED average, which means that a lab quiz is NOT equivalent to a comprehensive final!

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Actual score (out of 100 points)</th>
<th>Weighted portion calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% = Online Homework Average (E-campus)</td>
<td>100</td>
<td>(0.30)100 = 30</td>
</tr>
<tr>
<td>20% = Comprehensive Final</td>
<td>84</td>
<td>(0.20)84 = 17</td>
</tr>
<tr>
<td>10% = Written Lab Report</td>
<td>90</td>
<td>(0.10)90 = 9</td>
</tr>
<tr>
<td>5% = Lab Quiz Average</td>
<td>80</td>
<td>(0.5)80 = 4</td>
</tr>
<tr>
<td>5% = Prelab Average</td>
<td>80</td>
<td>(0.5)80 = 4</td>
</tr>
<tr>
<td>30% = Mid-term exam Average (I, II &amp; III)</td>
<td>88</td>
<td>(0.30)88 = 26</td>
</tr>
</tbody>
</table>

100% = Total class grade = 90 (equals “A”)
Required Materials:

**BIOLOGY 2e, by OpenStax** (FREE!)
https://openstax.org/details/books/biology-2e

*Print: Optional*
ISBN-10: 1-947172-51-4

*Digital:*

**Sapling Learning (Online Homework System)**

SUPPLIED ELECTRONICALLY FREE OF CHARGE VIA ECAMPUS

The *Laboratory Manual* is available (free) online on your e-campus site.

**Catalog Course Description**

An introductory survey of contemporary biology for students majoring in the sciences. Topics emphasized will include the chemical basis of life, structure and function of cells, energy transformations, and molecular biology and genetics.

**Pre-requisites**

One of the following must be met: (1) DREA 0093 AND DWRI 0093; (2) ESOL 0044 AND ESOL 0054; or (3) have met TSI Reading and Writing standards AND DCCCD Writing score prerequisite requirement.

**RECOMMENDED PRE-REQUISITE:** MATH 1314. Successful completion of College Algebra or concurrent enrollment in higher-level mathematics is recommended.
Attendance Policy: In order to be successful, students must attend and participate in enrolled courses.

Academic Progress:
Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester – please refer to the following link for more details:

http://www.rlc.dcccd.edu/advising/

Also, consult the Advising Syllabus

http://richlandcollege.edu/assets/uploads/2015/02/advising-syllabus.pdf
regularly to check if you are on track.

Richland College’s Quality Enhancement Plan ~
~Learning to Learn: Developing Learning Power

Richland College is piloting its Quality Enhancement Plan (QEP) in select classes. The QEP provides techniques, practices, and tools to help students develop the habits, traits or behaviors needed to be effective and successful lifelong learners in college and in life. For more information, please check QEP (http://www.richlandcollege.edu/qep/)

College Policies and Procedures:

Institutional Policies relating to this course can be accessed from the following link: www.richlandcollege.edu/syllabipolicies
Student Learning Outcomes

Upon successful completion of this course, students will:
1. Describe the characteristics of life.
2. Explain the methods of inquiry used by scientists.
3. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
4. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
5. Communicate effectively the results of scientific investigations.
6. Identify the basic requirements of life and the properties of the major molecules needed for life.
7. Compare and contrast the structures, reproduction, and characteristics of prokaryotic cells and eukaryotic cells.
8. Describe the structure of cell membranes and the movement of molecules across a membrane.
9. Identify the substrates, products, and important chemical pathways in metabolism.
10. Identify the principles of inheritance and solve classical genetic problems.
11. Identify the chemical structures, synthesis of nucleic acids and proteins.
12. Describe the unity and diversity of life and the evidence for evolution through natural selection.

CORE CURRICULUM Statement of Purpose

Through the Texas Core Curriculum, students gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives for the Sciences:
- **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.