BIOL 111 - Basic Biology  

Fall 2019

Instructor: Dr. Karen Guzman
Office: Campbell Science Bldg, Rm 212
Office hours*
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Email: guzman@campbell.edu
Website: https://wordpress.campbell.edu/guzman

* Times will be announced during the class and posted on my office door. If modifications are necessary, they will usually be announced in class and posted on my door. Please inquire about availability outside of scheduled hours.

COURSE DESCRIPTION

An introduction to biological chemistry, cell biology, energy relationships, reproduction, genetics, evolution, and ecology. Course is taught in accordance with the Mission Statement of Campbell University. Three lecture hours and three laboratory hours per week (4 credits). The level of the course material is geared toward a science major and prepares students for subsequent biology courses. BIOL 111 is a prerequisite for all biology courses except BIOL 101, BIOL 204, BIOL 215, BIOL 226, and BIOL 241.

This course supports the mission of Campbell University “to graduate students with exemplary academic and professional skills who are prepared for purposeful lives and meaningful service” and “embraces the conviction that there is no conflict between the life of faith and the life of inquiry.” To learn more about Campbell’s mission, go to: https://www.campbell.edu/about/mission

COURSE PREREQUISITE: None

COURSE OBJECTIVES & GENERAL EDUCATION LEARNING OUTCOME:

Basic Biology lays the foundation for understanding the course material in all of your future Biology courses. In addition to the concepts and content you will learn in the course, you will also begin developing the skills to think scientifically, reason critically, analyze information and perform professionally. All of these things are keys to your success.

This course also supports the GCC learning outcome I.3c - Students will answer questions and solve problems using logic, creativity, and methodologies appropriate to discipline(s).

REQUIRED BOOKS & SUPPLIES:


Additional supplies required for the laboratory will be explained by your laboratory instructor.

Although I do not anticipate the need to do so, I reserve the right to amend the syllabus during the course if necessary. Any changes will be announced in class.
ONLINE RESOURCES:
Various online study resources will be available primarily on the course web page but occasionally on Blackboard if specified. Some materials will be password protected. I will only give out the password in person (in class or individually), so please ask if you forget the password, but do not request it via email.

COURSE EVALUATION:

**Lecture.** Lecture is worth 75% of your final grade. Evaluation will be based on 3 preliminary exams, a comprehensive final exam, and “Other Work” which can include participation, assignments and quizzes. The contribution to the 75% is as follows: preliminary exams (14 x 3 = 42%), final exam (25%), Other Work (8%).

The final exam is comprehensive and has three components: questions from the last section of material, cumulative questions from the entire semester, and Biology assessment questions that all sections of BIOL 111 include. The assessment questions cover ‘nature of science’, ‘data analysis’, ‘evolution’.

**Laboratory.** Laboratory is worth 25% of your final grade.

Any student enrolled in the BIOL111 lecture MUST also be enrolled in the BIOL111 laboratory, NO EXCEPTIONS! Mastery of laboratory topics is assessed through evaluations including laboratory worksheets & quizzes. Attendance and participation are also assessed and may impact your lab grade. A laboratory syllabus is provided in the final pages of this document and your lab instructor will also provide more details.

Final letter grades are based on a 10-point scale (90-100 = A, etc.). Your final grade can be calculated as follows:

\[(0.42 \times \text{Exam Avg}) + (0.25 \times \text{Final Exam}) + (0.08 \times \text{Other Avg}) + (0.25 \times \text{Lab Grade}) = \text{Final Grade}\]

ATTENDANCE & MAKE-UP POLICY:

Attendance will be recorded for each class. Excessive absences will adversely affect your performance in the course and can result in a failing grade. According to Campbell’s policy, students who miss >15% of scheduled class times will receive no credit for the course (a grade of F unless the student has properly withdrawn). Refer to your student handbook for additional details concerning the CU policy.

If you must miss an exam (or other type of evaluation including in-class participation) for any reason you must notify the instructor immediately: when possible, before the actual absence, but at least by 5 pm the day of the exam or other evaluation. Make-ups will only be given for excused absences that are documented and verified. Also, attendance will be taken into consideration at the end of the semester for grades that are on the border between two letter grades. If you miss an exam and do not have a documentable excuse, you will receive a 0 for that exam.

If you will miss class for a university approved activity (e.g. sports event, concert, etc.) your coach/director must verify the event in writing (e.g. email or memo which includes your name) before the expected absence and you must speak to me at least by the class before the absence to determine if there is any work that must be submitted before the next class period.

Laboratory attendance is mandatory. Students who miss (and fail to makeup) 2 lab sessions will earn a grade of “F” as their laboratory grade. **A student must receive a passing grade in the laboratory (60% or better) to receive credit for the course.** A copy of the laboratory syllabus is provided at the end of this document for your convenience.
CLASSROOM CONDUCT:
As both course instructor and student, it is our mutual responsibility to maintain an environment that is conducive to learning. Therefore, I hope that in this class we can agree to display common courtesy, respect and professionalism in our interactions with each other. Such behavior should include, but is not limited to the following:

- We will arrive early or on time to class and be prepared to begin at the time designated for the class to begin.
- We will not accept or respond to phone calls, text messages, or other electronic messaging during class, unless there is an emergency, but instead will give each other our full attention.
- We will attempt to meet our needs for visiting the rest room, getting something to drink, etc. either before or after class.
- We will not leave during the class period except for extenuating circumstances such as a medical emergency (e.g. nosebleed, diarrhea, etc.). In the case that we must arrive late to class or leave early, we will make every attempt to inform the other party (i.e. instructor to students or student to instructor) as far in advance as possible.

In the event we believe that another party has not dealt with us courteously and respectfully, we will attempt to reconcile the situation in an appropriate and respectful manner.

USE OF ELECTRONICS IN THE CLASSROOM
Use of all types of electronic devices is limited to those specified for an activity during class. Use of electronics for any other purpose, including disability accommodations or if you desire to tape the lecture, must be pre-approved by the instructor before use or may result in a grade deduction.

Electronic devices that fall under this policy include (but are not limited to) items such as computers, iPads, cell phones, tape recorders, etc. Be aware that all class materials, including the lecture, are proprietary and as such are restricted by copyright laws such that distribution to others in any form, whether freely or for sale, could result in prosecution. Failure to follow this, or any other classroom policies, may result in a deduction in your final grade.

INTEGRITY & THE HONOR CODE:
In this course as in other aspects of your Campbell experience, all students are subject to the academic integrity and behavioral expectations of the university. Moreover, in any institution of higher education, honesty is crucial to the educational process. Whether signing the attendance sheet, completing an assignment, or answering questions on an exam, any work that you submit should be your own unless clearly assigned as a group project. Appropriate referencing of the work or words of others is essential. Ignorance is not an acceptable excuse. When in doubt, ask! Some of these issues are not always clearly defined and I will be glad to work through any gray areas with you. Matters of cheating and plagiarism will result in a grade of zero on that assignment or exam and notification of the Dean of Student Life. Additional consequences may include a failing grade in the course and the possibility of expulsion from school. The following excerpts from Campbell’s Code of Ethics are pertinent to this topic:

“The basic principles which guide the development of Christian character and govern Christian behavior are to be found in the Scriptures… The student, by virtue of his enrollment, agrees to abide by the rules and moral precepts which govern the University community…”

10. To be honest in all behavior, never cheating, plagiarizing, or knowingly giving false information.
12. To exemplify high principles of honor, integrity, and morality, and to help others fulfill their obligations under this code.”
UNIVERSITY OFFERED STUDENT SERVICES & RESOURCES:
A variety of useful services are available through Student Services. Individual links can be found on their website (https://www.campbell.edu/students/student-success/), but below is a list of some services and who to contact.

Modifications or Accommodations
Students with documented disabilities who desire modifications or accommodations must contact the Office of Disability Services located in the University’s Student Services Building (between Carter Gym and the Wallace Student Center). No accommodations will be made without approval through this office. A medical, psychological or other diagnosis may rise to the level of a disability if it substantially limits one or more major life functions, one of which is learning. A disability may be temporary or ongoing. Please contact Disability Services for more information if you believe you may need services.

For disability services, contact:
Laura Rich, Director, Disability Services
Student Services Bldg.
910-814-4364, or richl@campbell.edu

Academic Support:
To aid in student success Campbell University also aims to provide exceptional academic student support. Academic Support Services offers tutoring, supplemental instruction, coaching and other academic support programs and services to all students. Students are able to request these services through the Student Success website, Starfish or receive a referral from faculty.

For academic support please contact:
Dr. Bernice Alston, Director, Academic Support Services
Student Services Bldg.
910-814-4358 or balston@campbell.edu
Mrs. Margarett Herder-Hill, Assistant Director, Academic Support Services
Student Services Bldg.
910-814-4363 or mherderhill@campbell.edu

Counseling Services:
All main campus undergraduate students can receive free confidential counseling through Counseling Services. To make an appointment, visit the office located at 233 Leslie Campbell Avenue (brick house beside Memorial Baptist Church and across from Luby Wood Residence Hall) or call 910-814-5709.

CU Writing Center
The CU Writing Center provides support for students at any stage of the writing process. From brainstorming to final revisions, writing coaches can help strengthen your paper. The Writing Center is not a proofreading service, but instead focuses on sharpening your skills as a writer. To get the most from your session, bring your draft early, at least two days before your paper is due. Bring a printed draft and a copy of your assignment. Typical sessions last no more than 20 minutes. The Writing Center is located on the third floor of Wiggins Library and is open Monday-Thursday, 6-9 p.m.

Success Coaching:
Success coaching provides students with an opportunity to work one-on-one with a peer to further develop skills in note-taking, test taking, time management, and additional areas of concern that could impact their academic abilities. Students that would like to request a success coach or need additional information about this service should visit the Student Success website.
INCLEMENT WEATHER:

In general, Campbell University does not close for inclement weather. In the event that weather conditions warrant university-wide class cancellations, a notice will be posted online (www.campbell.edu) and on a telephone line (campus: 5700; local/off-campus: 910-814-5700; long distance: 800-760-8980).

If the university is open, but our class is cancelled, I will post this information on the course web page. A link to the course page is available at my main web page at the URL indicated above.

Whether the university is closed or just our class is cancelled, if we miss class due to weather there will be an assignment posted on the course website that must be completed before the next class.

Lecture Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Th</td>
<td>8/22</td>
<td>Introduction to Life</td>
</tr>
<tr>
<td>T</td>
<td>8/27</td>
<td>Atoms &amp; Molecules</td>
</tr>
<tr>
<td>Th</td>
<td>8/29</td>
<td>Biological molecules</td>
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<tr>
<td>T</td>
<td>9/3</td>
<td>Cell Structure &amp; Function</td>
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<tr>
<td>Th</td>
<td>9/5</td>
<td>Cell Membranes</td>
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<tr>
<td>T</td>
<td>9/10</td>
<td>Exam I</td>
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<tr>
<td>Th</td>
<td>9/12</td>
<td>Energy &amp; Metabolism</td>
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<tr>
<td>T</td>
<td>9/17</td>
<td>Photosynthesis</td>
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<tr>
<td>Th</td>
<td>9/19</td>
<td>Energy Metabolism: Cell Respiration</td>
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<td>T</td>
<td>9/24</td>
<td>Cellular Reproduction: Mitosis</td>
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<td>Th</td>
<td>9/26</td>
<td>Sexual Reproduction: Meiosis</td>
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<tr>
<td>T</td>
<td>10/1</td>
<td>Patterns of Inheritance</td>
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<td>Th</td>
<td>10/3</td>
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<td>T</td>
<td>10/8</td>
<td>Exam II</td>
</tr>
<tr>
<td>Th</td>
<td>10/10</td>
<td>Fall Break</td>
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<tr>
<td>T</td>
<td>10/15</td>
<td>DNA: Molecule of Heredity</td>
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<tr>
<td>Th</td>
<td>10/17</td>
<td>Gene Expression</td>
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<tr>
<td>T</td>
<td>10/22</td>
<td>Biotechnology</td>
</tr>
<tr>
<td>Th</td>
<td>10/24</td>
<td>Principles of Evolution</td>
</tr>
<tr>
<td>T</td>
<td>10/29</td>
<td>How Populations Evolve</td>
</tr>
<tr>
<td>Th</td>
<td>10/31</td>
<td>Origin of Species</td>
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<tr>
<td>T</td>
<td>11/5</td>
<td>History of Life</td>
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<tr>
<td>Th</td>
<td>11/7</td>
<td>Exam III</td>
</tr>
<tr>
<td>T</td>
<td>11/12</td>
<td>Population Growth</td>
</tr>
<tr>
<td>Th</td>
<td>11/14</td>
<td>Community Interactions</td>
</tr>
<tr>
<td>T</td>
<td>11/19</td>
<td>Energy Flow in Ecosystem</td>
</tr>
<tr>
<td>Th</td>
<td>11/21</td>
<td>Thanksgiving</td>
</tr>
<tr>
<td>T</td>
<td>11/26</td>
<td>Diverse Ecosystems</td>
</tr>
<tr>
<td>Th</td>
<td>11/28</td>
<td>Conserving Biodiversity</td>
</tr>
<tr>
<td>W</td>
<td>12/4</td>
<td>Reading Day</td>
</tr>
<tr>
<td>F</td>
<td>12/6</td>
<td>Final Exam at Noon</td>
</tr>
</tbody>
</table>

Other Important Dates: 9/11/19 Last day to drop w/o grade; 10/28/19 Last day to drop w/ a W
BIOL 111L: Basic Biology Laboratory

LABORATORY SAFETY: Please be aware that laboratory safety is important.
- EVERY STUDENT MUST WEAR SAFETY EYEWEAR AND CLOSED-TOE SHOES TO EACH LAB SESSION—EVEN ON THE FIRST DAY OF LAB. Complete Safety rules are listed on Blackboard or IN THE LAB MANUAL PAGE 1.
  - PURCHASE THE BIO PACK in the Bookstore for the complete supplies (except shoes) required for lab, or purchase all separately, prior to lab. [Minimum specs for the safety eyewear portion: ANSI Z87.1+ and NO DIRECT VENTING or side slats (no holes drilled in sides such as wood shop goggles)]
  - THESE ARE NOT INCLUDED IN THE BOOK RENTAL FEE PROGRAM!
  - No Flip-Flops, Crocs, or Sandals—wearing socks with these does NOT make them "closed-toe."

GRADING: Most lab sessions will be graded based on submitted LAB WORK (80%), PLUS ONLINE Pearson Mastering Biology Pre-lab content (which must be completed BEFORE each new lab week begins) (20%).
- PRE-LAB 1 Pearson Mastering Biology item is the only exception to this rule (it should be completed by the day of your 1st lab, but NLT 8/31 11:59 pm).

READ THE LAB MANUAL PAGES BEFORE EACH LAB. Make sure that ALL LAB MANUAL STUDENT DATA SHEETS ARE BLANK (NOT FILLED IN)
- PRIOR TO THE LAB SESSION. COMPLETE all online Pearson Mastering PRE-LABS by the assigned due date/time (Saturdays at 11:59 pm).

ATTENDANCE: Laboratory attendance is mandatory and students are expected to attend their scheduled laboratory session. The Campbell University attendance policy applies. STUDENTS WHO MISS (AND FAIL TO MAKE UP) ANY 2 LAB SESSIONS WILL RECEIVE AN AUTOMATIC “F” AS THEIR LABORATORY GRADE. STUDENTS MUST RECEIVE A PASSING GRADE (60% OR BETTER) IN LABORATORY TO RECEIVE CREDIT IN THE OVERALL BIOL111 LECTURE COURSE.
- If a student misses a lab for whatever reason, that student will need to sign up in advance for a lab make-up session. (Legit sickness --> sign up ASAP.)
- PRINTED ON THE INSIDE of the FRONT COVER OF THE LAB MANUAL, the full process is outlined on that “Make-Up Lab Session Procedure”, including how to prepare for athletic, band, & other pre-scheduled events. Also, lab meets 11 times this semester: schedule elective events at times other than these times.
- MAKE UP LAB SESSIONS WILL BE OFFERED ONLY TWICE (2X) THIS SEMESTER: AT SPECIFIC TIMES DURING THE WEEK OF SEPTEMBER 30 AND THE WEEK OF DECEMBER 2 (SEE BELOW). First lab make-up date is for the first set of labs missed, second is for the second set. Normally ONE lab only may be reconciled per make-up week.
- A student must CONTACT THE REGULAR LAB SECTION INSTRUCTOR (TA) immediately to make up a lab. Note that students will not be allowed to attend a make-up session if they have not followed the proper procedures to SIGN UP for that session. (No drop-ins permitted, keep in communication with the lab TA...)
- IMPORTANT! Although for attendance purposes, a student is technically “allowed” to miss one lab, if a student fails to MAKE-UP that missed lab, that person WILL receive a ZERO for that entire lab. This counts for 1/11ths of the total Lab grade, affecting the overall BIOL111 COURSE grade as well.

Lab Manager’s website for BIOL 111 lab INFO:  https://wordpress.campbell.edu/biologylabmanager/
**LAB SCHEDULE**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Lab Manual Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-21 to 8-23</td>
<td>No BIOL111 Labs, however, for a grade</td>
<td>Complete MasteringBiology Safety Quiz (if possible, BEFORE attending 1st lab)</td>
</tr>
<tr>
<td>8-26 to 8-30</td>
<td>Lab Safety / Intro. to Microscopes</td>
<td>Chap. 1, pg. 5-22 + Appendix 179</td>
</tr>
<tr>
<td>9-2 to 9-6</td>
<td>No BIOL111 Labs</td>
<td>LABOR Day; no 111 labs all week</td>
</tr>
<tr>
<td>9-9 to 9-13</td>
<td>Cell Structure</td>
<td>Chap. 2, pg. 23-32</td>
</tr>
<tr>
<td>9-16 to 9-20</td>
<td>Water, Diffusion &amp; Osmosis</td>
<td>Chap. 3, pg. 33-50 + Appendix 183</td>
</tr>
<tr>
<td>9-23 to 9-27</td>
<td>Cell Division (mitosis / meiosis)</td>
<td>Chap. 4, pg. 51-66 + Appendix 185</td>
</tr>
<tr>
<td>9-30 to 10-2</td>
<td>No regular BIOL111 Labs</td>
<td><strong>MAKE-UP lab sessions (M, T, W)</strong></td>
</tr>
<tr>
<td>10-7 to 10-11</td>
<td>Introduction to Genetics</td>
<td>Chap. 5, pg. 67-84</td>
</tr>
<tr>
<td>10-14 to 10-18</td>
<td>Photosynthesis</td>
<td>Chap. 6, pg. 85-98</td>
</tr>
<tr>
<td>10-21 to 10-25</td>
<td>Biotechnology &amp; Electrophoresis</td>
<td>Chap. 7, pg. 99-116</td>
</tr>
<tr>
<td>10-28 to 11-1</td>
<td>Evolution</td>
<td>Chap. 8, pg. 117-132</td>
</tr>
<tr>
<td>11-4 to 11-8</td>
<td>Respiration &amp; Fermentation</td>
<td>Chap. 9, pg. 133-146</td>
</tr>
<tr>
<td>11-11 to 11-15</td>
<td>SimUText: Keystone Predator</td>
<td>Chap. 10, pg. 147-168</td>
</tr>
<tr>
<td>11-18 to 11-22</td>
<td>Ecology: Statistics &amp; Graphing</td>
<td>Chap. 11, pg. 169-176</td>
</tr>
<tr>
<td>11-25 to 11-26</td>
<td>No BIOL111 Labs</td>
<td>Thanksgiving; no 111 labs all week</td>
</tr>
<tr>
<td>12-2 to 12-3</td>
<td>No regular BIOL111 Labs</td>
<td><strong>MAKE-UP lab sessions (M, T)</strong></td>
</tr>
</tbody>
</table>

**ANNOUNCEMENT** for Pearson Pre-lab 1: [https://wordpress.campbell.edu/biologylabmanager/?p=193](https://wordpress.campbell.edu/biologylabmanager/?p=193)

Pearson Mastering Biology *(modified)* – for online PRE-LAB assignments

Student Registration Instructions

**TO REGISTER FOR Fall 2019 Basic Biology, CU:**

1. Go to [www.pearson.com/mastering](http://www.pearson.com/mastering)
2. IMPORTANT – **ALWAYS MAKE SURE IT REDIRECTS YOU TO THIS WEBSITE:**
   [https://www.pearsonmylabandmastering.com/northamerica/](https://www.pearsonmylabandmastering.com/northamerica/)
   Please note that this is a different site than Chemistry uses with Pearson!!!
3. Under Register, select **Student**
4. Confirm you have the information needed, then select **OK! Register now**
5. Enter the LAB instructor’s course ID: **tylka26814**, and **Continue**
6. Enter your existing Pearson account **username** and **password** to **Sign In**
   - You have an account if you have ever used a MyLab or Mastering product.
   - If you don’t have an account, select **Create** and complete the required fields.
7. **SELECT AN ACCESS OPTION**.
   - **access code** for Mastering Biology (BIOL111): **USCMBT-SCOFF-TARRY-ASSET-ABASH-NINES**
8. From the You’re Done! page, select **Go To My Courses**
9. On the My Courses page, select the course name **Fall 2019 Basic Biology, CU** to start your work.
TO SIGN IN LATER:

1. Go to www.pearson.com/mastering
2. IMPORTANT – ALWAYS MAKE SURE IT REDIRECTS YOU TO THIS WEBSITE:
   https://www.pearsonmylabandmastering.com/northamerica/
   Please note this is a different site than Chemistry uses with Pearson!!!
3. Select Sign In.
4. Enter your Pearson account username and password, and Sign In.
5. Select the course name Fall 2019 Basic Biology, CU to start your work.

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PEARSON Check System Requirements (computer/IT) – DON’T WAIT, do this now!

Getting Started With Modified Mastering (and other Student Help):
https://help.pearsoncmg.com/mastering/student/ccng/TopicsStudent/gettingstartedwithmastering_student.htm