BIO 110I02: PRINCIPLES OF BIOLOGY Internet
FALL 2015
SYLLABUS

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Office Hours: M-TH 1-2pm
Contact Instructions: Emails should contain class and section in subject line and expect a response within 24hrs (M-F) and 48hrs (weekends).

Credit Hours: 4
Prerequisites: Minimum ASSET Reading Score of 41, Minimum CPT Reading Score of 80, or ENG 095
Description: This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday lives.

• BIO 110 Internet is taken through the course management system Blackboard, the http://www.pearsonmylabandmastering.com/ website, and Hands On Labs.
  o Students will NOT come to campus for any lectures or labs.
  o All homework, labs, quizzes, discussions, exams, and other assignments will be completed and submitted through Blackboard, Pearson My Lab and Mastering, or Hands On Labs
• Each student MUST HAVE a home-based computer with Microsoft Word, Microsoft Excel, and Microsoft PowerPoint installed and the ability to take and upload pictures to Blackboard.

I. Required Course Materials:

1. **Campbell Essential Biology. 6th Edition. Simon, Hogan, Reece, and Dickey plus MasteringBiology. 13: 9780133909708** (This is the loose leaf version available in the bookstore. There are also hardback and ebook versions available.)

2. **Hands on Labs Kit SKU SP-3003-BK-01.** This kit must be purchased from the CFCC Bookstore. The bookstore can ship the kit to you, if necessary.
If you buy a used textbook you will need to purchase a Mastering Biology code separately online at http://www.pearsonmylabandmastering.com/. (See Registration and Log In instructions in Section II of this Syllabus.)

4. Computer with internet access, Microsoft Office software (Word, Excel, Powerpoint)

5. Ability to take and upload digital pictures to Blackboard

6. A few additional materials not included in the lab kit.

II. Mastering Biology Registration and Log In Instructions:

IF YOU NEED ASSISTANCE WATCH THIS VIDEO TUTORIAL FIRST:
http://www.youtube.com/watch?v=e5HQCDcdg8A

Registration Steps:
1. Go to http://www.pearsonmylabandmastering.com/
2. Click “Students” under Register
3. Upon verifying you have your cfcc email address, Course ID (from syllabus), and access code from new book or purchased separately, click OK Register now!
4. Enter the course ID: branson74695

5. Setup your Pearson account. If you have an existing Pearson account sign in. If not create one using your CFCC email address. **Use the same name that is used in Blackboard. For instance, if your last name is hyphenated in Blackboard, use the same hyphenated name in Mastering – don’t shorten it.**

6. If you purchased a new textbook with Pearson My Lab and Mastering, click “Yes, I have an access code.” If you did not purchase the textbook with My Lab and Mastering, click “No, I need to purchase access online now.” (~$40.00) You can also purchase an access code from the book store.

7. Follow the rest of the on-screen instructions to complete registration.

Log In Steps:
2. Enter your Login Name and Password and click “Log In”.
3. Select the correct course that corresponds with the Course ID as shown below:
   - BransonBIO110101FA2015 Principles of Biology (branson74695)
   
   Your section number is shown with the course title in Blackboard.

Support:
1. Online Help link in located at the top right of the Mastering Biology screen.
2. For registration questions only:
   http://247pearsoned.custhelp.com/app/answers/detail/a_id/1637
3. For all other question:
   http://www.pearsonmylabandmastering.com/northamerica/students/support/index.html

III. Grading Policy:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Homework</td>
<td>Total Points varies by assignment</td>
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<tr>
<td>Weekly Quizzes</td>
<td>20pts</td>
</tr>
<tr>
<td>Discussion Board Forums</td>
<td>5pts</td>
</tr>
</tbody>
</table>
Safety Sheet 10pts
Labs 20pts
Midterm Exam 100pts
Final Exam 100pts

Homework
- Weekly Homework will be assigned and completed on the Mastering Biology website.
- Grades will be posted in Mastering Biology
- Grades will be transferred to the Blackboard Gradebook by the instructor. This will be done at the end of the semester. However you will always have access to your Mastering HW grade via the Pearson website.

Homework Grading Policy:
Number of answer attempts per question is: 6
You gain credit for:
- Correctly answering a question in a Part
- Correctly answering a question in a Hint
- Not opening a Hint (2% bonus)
You lose credit for:
- Exhausting all attempts or giving up on a question in a Part or Hint
- Incorrectly answering a question in a Part or Hint

Late submissions: receive no credit.
Hints are helpful clues or simpler questions that guide you to the answer. Hints are not available for all questions.
There is no penalty for leaving questions in Hints unanswered.
Grading of Incorrect Answers before the last attempt:
- You lose 100%/(# of options - 1) credit per incorrect answer on multiple-choice and true/false questions.
- You lose 3% credit per incorrect answer on questions that are not multiple-choice or true/false.

Weekly Quizzes (Multiple Choice)
The Weekly Quizzes will be taken through Blackboard.
- The quizzes consist of 20 multiple choice questions.
- You may take each quiz up to 3 times. Each time you take the quiz the questions will be different and randomized. The highest grade will be counted.
- You will have only 30 minutes to complete each attempt, so it is important to read the chapters carefully and study before opening the quiz.
- There is no make-ups for quizzes

Discussion Board Forums
- The Discussion Board Forums will be conducted through Blackboard.
- Usually you will need to research and answer a question in your own words in 1 post and reply to at least one other classmate in a separate post.
- Be sure to read and follow the instructions for each Discussion Board Forum to receive full credit.
- Put your posts in your own words and cite all sources used.
- You will receive a 0 for the assignment and possible an F for the course if you plagiarize.
- There are no make-ups for discussion board posts and late posts will receive a 0.

Lab Write Ups
The Labs will be assigned through Blackboard and will require the Hands on Lab Kit and their website.
You will follow the directions and complete all the work assigned for each lab.
The work will submitted through Blackboard as a Word document or as questions answered in a quiz format.
Some labs consist of several portions. Each portion will be counted as a separate grade.
You are responsible for obtaining the few materials necessary for the labs that are not included in the kit.
No credit for late labs

Midterm Exam
The Exam will be taken through Blackboard
It will cover approximately the 1st half of the semester.
The Midterm Exam will consist of multiple choice questions. They may also include short answer and essay questions.
On some portions of the exam you will only have 1 attempt; on others you will have 2 attempts.
Read the instructions carefully.
You will have only 30 minutes to complete each portion, so it is important to read the chapters carefully and study before opening the exam.
Exams will not be reopened and no make-ups given

Final Exam (Multiple Choice)
The Exam will be taken through Blackboard
It will cover approximately the 2nd half of the semester.
The Final Exam will open on 12/7 and be due on 12/14 to allow for Final Grade Calculation
On some portions of the exam you will only have 1 attempt; on others you will have 2 attempts.
Read the instructions carefully.
You will have only 30 minutes to complete each portion, so it is important to read the chapters carefully and study before opening the exam.
Exams will not be reopened and no make-ups given

You will be graded on an 8 point scale as follows:
A 100-92, B 91-84, C 83-76, D 75-68, F 67-0

You can track your grade in Blackboard and My Lab and Mastering through the semester by the Total in My Grades

IV. Assignment Format:
Use the following format for any Word documents (Lab Write Ups, etc) you submit:

- Name, Date, Title of Assignment
- Numbered questions and answers.
  - You must submit pictures with each lab. Each picture must include a date, either printed by the camera or written on a card included in the picture. The pictures will include:
    - A dated picture of you with your lab set up.
    - Any other pictures you are instructed to submit. All dated.
V. File Names:
Any file uploaded to Blackboard must be named in the following manner:

- Last Name First Name Title of Assignment
- Example: Branson Adam Chapter 2 Lab

Do NOT use symbols (&, /, “”) in your file name. I will not be able to open the file.

BE SURE TO SAVE ALL ORIGINAL & COMPLETED ASSIGNMENT FILES UNTIL YOU RECEIVE YOUR FINAL GRADE IN CASE THERE IS A PROBLEM.

VI. Late Submission & Make Up Policies:

- Weekly assignments are opened on Mondays at 8 am and close on Mondays at noon the following week.

- Once assignments (including homework, quizzes, labs, discussion boards, and exams) are closed in Blackboard and Mastering Biology they will NOT be accepted.

- There will be NO makeup of any assignment.

- Submit assignments at least a day before the due date to avoid technical difficulties that may affect your grade.

If you have technical difficulties with an assignment:
- Send me an email at abranson@cfcc.edu immediately.
- GET YOUR ASSIGNMENTS DONE EARLY. TECHNICAL DIFFICULTIES ON THE DAY ASSIGNMENTS ARE DUE WILL AFFECT YOUR GRADE.

VII. Attendance Policy:
Because this is an internet course, attendance cannot be taken daily. The following guidelines apply for this course:

- Missing 3 weeks of consecutive homework and/or discussion boards and/or lab write-ups and/or quizzes will result in a course grade of “F”.

VIII. Class Conduct:
1. All assignments in this course are to be done individually.
2. All assignments, quizzes, and exams are open book assignments.
3. Do not “Copy and Paste” from any source. This will result in a grade of “F” for the course.
4. If it is discovered that you are turning in work that is not your own or that you are receiving inappropriate help on assignments, quizzes, or exams you will receive a 0 on that assignment, quiz, or exam and you may receive an “F” for the course. Refer to the college’s policy on cheating in the student handbook.
**Academic Honesty:** Any behavior indicating dishonesty, unethical intent or action as specified by CFCC will result in an “F” for the course. Please read the section on “Cheating” in the CFCC Catalog and Student Handbook.

Plagiarism is using as your own the words or ideas of another, whether written or oral. When you use material from a source, you must quote or paraphrase accurately and properly cite the information. Failure to do so is considered plagiarism. Examples of plagiarism include word-for-word copying without correctly indicating that you are quoting, inaccurate quoting and paraphrasing, and incomplete or missing documentation. Purchasing a paper or copying someone else’s work and submitting it as your own are also plagiarism. Any misrepresentation of the source in your writing or speaking would constitute a form of plagiarism.

Whether intentional or unintentional, plagiarism is not acceptable and will result in the student being assigned a grade of zero for the assignment and/or the course, at the instructor’s discretion.

**IX. Learning Lab Facilities:**

Downtown Campus Science Study Room:
- Room N407 of the Natural Sciences Building
- Tutors, computers with internet access, microscopes and slides available
- Call 910-362-7137 or visit [http://cfcc.edu/learninglab/hours.html](http://cfcc.edu/learninglab/hours.html) for more information.

Student IT Help-Desk Information: Downtown
- Location:L114 (lobby area near the stairwell close to student activities)
- Hours: 8:00am to 8:00pm except Fridays 8:00am to 5:00pm
- Phone:362-4357
- Email: StudentHelp@cfcc.edu

North Campus Learning Lab:
- Science tutors may also be available in the North Campus Learning Lab in room NA113i. Call 910-362-7554 or visit [http://cfcc.edu/learninglab/hours.html](http://cfcc.edu/learninglab/hours.html) for more information.

Student IT Help-Desk Information: North Campus
- Location:NA208
- Hours: 8:00am to 8:00pm except Fridays 8:00am to 5:00pm
- Phone:362-7778
- Email: StudentHelp@cfcc.edu

You must fill out a permission slip with the Learning Lab to have access to these facilities.

**X. Student Accounts:**

Your myCFCC account is a single username and password for all of your CFCC network accounts: email, WebAdvisor, Blackboard, campus computer access, and more. The email account provided to you (yourusername@mail.cfcc.edu) is used for all official communication with CFCC instructors and staff. To access this account, visit the myCFCC portal - there is a link to the portal near the top of the CFCC.edu website. Login and click the “Email” link some information will ONLY be sent by email and not by postal mail, so it is very important that you check this account. This account may also be used for personal mail, but is subject to the CFCC Acceptable Use Policy. Be sure to logout of your account in each service you may have opened (email, Blackboard, etc) when you leave a shared computer, otherwise it is possible for the next user of the computer to access your information.
XI. CFCC General Education Competencies:

CFCC General Education Competencies will incorporate all or some of the following:

| ✓ Computer Skills | ✓ Quantitative Skills |
| ✓ Critical Thinking | ✓ Written Communication |
| ✓ Global Awareness | ✓ Understanding Scientific Concepts & Applications |
| ✓ Oral Communication |

XII. Accommodation of Special Needs Based on Disability:

Any student who requests classroom accommodations because of a disability must present documentation to verify his/her disability. This documentation must be furnished to the Disabilities Service Coordinator, and this should be provided prior to requesting accommodation by the instructor. On a confidential basis, the student, disabilities services and the instructor will determine the appropriate accommodations following documentation. Accommodations will be provided in a manner that is consistent with the objectives, outcomes, and academic standards of the course. Absences must not exceed class attendance policy. For a list of CFCC Student Support and Academic Services, please visit http://www2.cfcc.edu/online/student-support/.

***The instructor reserves the right, acting within the policies and procedures of Cape Fear Community College, to make changes, adjustments, additions, and deletions in course content, first-day handout, or instructional technique, without notice or obligations.

Tobacco use is prohibited on all CFCC property. The first offense is a warning and the second offense may result in disciplinary action.

XIII. BIO 110 COURSE OBJECTIVES:

Upon completion, students will be able to demonstrate increased knowledge and understanding of the general concepts of biology:

- **The Process of Science**
  - List the sequential steps to the scientific method: 1) Observation; 2) Hypothesis; 3) Experimentation; and 4) Conclusion.
  - Given an observation and review of research/data, formulate a(n) hypothesis.
  - Given a hypothesis, formulate dependent and independent variables for an experiment.
  - Given an experiment, interpret data and produce viable conclusion based on the results.

- **Basic Chemistry**
  - List in order the steps in the hierarchy of biological system from an atom to an organism.
  - List the differences, considering electrons, between ionic, polar covalent, non-polar covalent and hydrogen bonds.
  - Describe the properties of water and water chemistry:
    - High Surface Tension
    - High Boiling Point
    - High Heat of Vaporization
    - High Specific Heat
    - Cohesion/Adhesion
    - Liquid state more dense than Solid state
  - Given a pH scale, interpret an acid, a base, neutral and be able to describe a buffer.

- **Organic Chemistry & Biochemistry**
  - Know the four major categories of macromolecules considered essential to life.
  - Know monomers/polymers with examples of each essential macromolecule category.
Given characteristics describing an essential macromolecule category, classify the category described.

- **Cells**
  - Understanding the interrelationship of the various cellular organelles that maintain life.
  - Recognize the differences between animal and plant cells.
  - Compare and contrast the differences between mitotic and meiotic division.

- **Energy**
  - Understanding the relationships within and throughout biological processes, such as, enzymatic activity, photo – and chemi –synthesis, and cellular respiration

- **Heredity**
  - Discuss an articulate the process of passing traits from one generation to another
  - Discover the process by which biotechnology utilizes the data from the genome project to improve life

- **Diversity**
  - Utilizing scientific procedures to map out the evolutionary line of organisms.
  - Understanding the interdependence between plant and animal organisms.
  - Articulate and understand the characteristics that separate organisms.

- **Ecology**
  - Understanding and articulating the interrelationship between mankind and the world we live in.
  - Understand and be able to apply processes that will benefit the environment.
  - Articulate and understand the characteristics of the various ecosystems.

### XIV. Course Schedule

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<thead>
<tr>
<th>FOLDER</th>
<th>ASSIGNMENTS</th>
<th>OPENS</th>
<th>CLOSES/DUE</th>
</tr>
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<tbody>
<tr>
<td>INTRO</td>
<td>Intro Assignment (BB)</td>
<td>8/21 (Friday Exception)</td>
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<tr>
<td></td>
<td>Intro Discussion Board (BB)</td>
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<td>Intro to Mastering Biology Homework (PM)</td>
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<td>Introduction (HOL)</td>
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<td>8/31</td>
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<td>Ch 1 Quiz (BB)</td>
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<td>Lab 1: Scientific Method (HOL)</td>
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<td>Lab 2 Chemical Properties (HOL)</td>
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<td>9/21</td>
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<td>CH 5</td>
<td>Lab 4 Cells Prokaryotic and Eukaryotic (HOL)</td>
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<td>10/5</td>
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<td>10/12</td>
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<td>10/26</td>
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<td>Ch 9 Quiz (BB)</td>
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<td>Lab 9 Genetics Plant Breeding (HOL)</td>
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<td>Ch 10 Mastering Biology Homework (PM)</td>
<td>11/9</td>
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<td>Lab 10 DNA, RNA, Protein (HOL)</td>
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<td>11/16</td>
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<td>Lab 11: DNA Extraction (HOL)</td>
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<td>Ch 13 Mastering Biology Homework (PM)</td>
<td>11/23</td>
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<td>12/7</td>
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<td>Final Exam</td>
<td>Final Exam (Ch 9-18) (BB)</td>
<td>12/7</td>
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</table>

This Schedule is subject to change through the semester. Information contained in this syllabus was, to the best knowledge of the instructor, considered correct and complete when distributed for use at the beginning of the semester. The instructor reserves the right, acting within the policies and procedures of
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