

**JOHN JAY COLLEGE OF CRIMINAL JUSTICE  
THE CITY UNIVERSITY OF NEW YORK  
BIOLOGY 101: Fall 2013**

Adjunct Assistant Professor **Rajintha Bandaranayake, Ph.D.**

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Office Hours: Tuesdays 10:45 am – 11:45 am / Saturdays 12:15 pm – 1:15 pm and by appointment; Room 3.62

Adjunct Assistant Professor **Kathy Joubin, Ph.D.**

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Adjunct Assistant Professor **Vasupradha Vethantham, Ph.D.**

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Office Hours: Tuesday 11:00 am – 12:00 pm and by appointment; Room 3.62

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| <b>Section 01:</b> | <b>1<sup>st</sup> Period (8:00 – 9:15a)</b> | <b>Tues/Thurs</b> | <b>Room NB 3.81</b> | <b>Vethantham</b>    |
| <b>Section 02:</b> | <b>1<sup>st</sup> Period (8:00 – 9:15a)</b> | <b>Tues/Thurs</b> | <b>Room NB 3.80</b> | <b>Bandaranayake</b> |
| <b>Section 03:</b> | <b>2<sup>nd</sup> Period (9:25a–10:40a)</b> | <b>Tues/Thurs</b> | <b>Room NB 3.81</b> | <b>Vethantham</b>    |
| <b>Section 04:</b> | <b>2<sup>nd</sup> Period (9:25a–10:40a)</b> | <b>Tues/Thurs</b> | <b>Room NB 3.72</b> | <b>Bandaranayake</b> |
| <b>Section 05:</b> | <b>6<sup>th</sup> Period (4:15p–5:30p)</b>  | <b>Tues/Thurs</b> | <b>Room NB 1.63</b> | <b>Joubin</b>        |
| <b>Section 06:</b> | <b>7<sup>th</sup> Period (5:40p–6:55p)</b>  | <b>Tues/Thurs</b> | <b>Room NB 1.63</b> | <b>Joubin</b>        |

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**Learning Goals of Bio101:**

- Outline some of the basic concepts of biology
- Describe the following basic concepts in the field of modern biology: structure of atoms and molecules, structure and function of macromolecules, structure and function of cells, cellular respiration and photosynthesis

**Blackboard:** Important course announcements, suggested homework assignments, review questions, a discussion forum for Q and A, and other resources will be posted to the course Blackboard. Check regularly. Furthermore, **students are responsible** for checking their **John Jay e-mail account** daily for important announcements. You are responsible for any and all course information, announcements, and communications that occur through blackboard and/or your email account. If you are having a difficult time with your John Jay email, then it is imperative that you check the course Blackboard daily. Contact DoIT, **not** your Bio instructor, for help with e-mail or Blackboard.

**Text / Study guide package:** The textbook is absolutely required. Students may purchase the custom text which contains material for Bio 101 and 102 and includes Mastering Biology access, or the hardcover. For the hardcover any edition is fine; however page numbers vary from the current 9th edition.

Hardcover Text: Campbell BIOLOGY 9<sup>th</sup> Edition (2010) Campbell, N., Reece, J. et al. New York: Pearson Benjamin Cummings. ISBN: 978-0321558237

Custom Text (Binder): Campbell BIOLOGY 9<sup>th</sup> Edition Volume 1 (9<sup>th</sup> ed.) Campbell, N., Reece, J. et al. New York: Pearson- Benjamin Cummings. (Available in the Bookstore ONLY)

**Statement of the College Policy on Plagiarism:** Plagiarism is the presentation of someone else's ideas, words, or artistic, scientific, or technical work as one's own creation. Using the ideas or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism. It is the student's responsibility to recognize the difference between statements that are common knowledge (which do not require documentation) and restatements of the ideas of others. Paraphrase, summary, and direct quotation are acceptable forms of restatement, as long as the source is cited. Students who are unsure how and when to provide documentation are advised to consult with their instructors. The Library has free guides designed to help students with problems of documentation. (JJC Undergraduate Bulletin, see Chapter IV Academic Standards). In this course, we will use [www.turnitin.com](http://www.turnitin.com) for the lab reports and other assignments.

**Attendance:** You are required to attend the lectures. An attendance sheet will be circulated during class. It is your responsibility to sign the sheet *during* class. You will not be permitted to sign the attendance sheet after the class has been dismissed. **More than four (4) unexcused absences is considered excessive and you will receive a grade of F.**

**Homework and Classwork Assignments:** Students will be assigned weekly homework in the form of writing assignments or on-line assignments via the internet portal *Mastering Biology*. Access codes for Mastering Biology are provided with the custom textbook, if bought in the John Jay Bookstore. Students that have purchased the text separately must purchase an access code through the Mastering Biology website. Classwork assignments will be given in the form of quizzes or other assignments determined by the instructor. These assignments are required; they are graded and contribute to the course grade, as described below.

**California Critical Thinking Skills Test:** All students are required to take the California Critical Thinking Skills Test (CCTST). The exam will take 45-60 minutes. Students that complete the test properly **before September 17th** will receive a perfect score on the first homework assignment, regardless of performance on the test. Those that do not complete the test properly will receive a zero on the first homework assignment. The instructors of this course will not receive the individual scores of specific students, only aggregated results. The CCTST must be taken in the Math-Science Resource Center (MSRC) located in room **1.94** of the new building.

**Instructions:**

- 1.) Make sure that your John Jay email account is active and you have the correct password.
- 2.) Make an appointment through TutorTrac to take the exam in the MSRC:
  - A.) First, visit <http://www.jjay.cuny.edu/academics/4830.php>
  - B.) Watch the instructional video.
  - C.) Make an appointment for the CCTST (not for tutoring)
- 3.) Do not be late for your appointment, or else you will not be able to do the test.
- 4.) The exam will take 45-60 minutes to complete and must be completed **before September 17<sup>th</sup>**.

**Exams:** There are four in-class lecture exams, the last of which, although not cumulative, will occur during finals week at the scheduled time. All exams are of equal weight and all will count. **There is NO dropped test.** If you miss an exam (or foresee that you will miss an exam) for any reason, you **MUST** contact the instructor **as soon as humanly possible**. You may be allowed to take the exam late (or early). However, you are **ONLY** eligible for this one-time consideration if you contact the instructor immediately and you arrange to take the exam **BEFORE** the corrected exams are handed back to the class. In all other cases, the missed exam **WILL count as a ZERO**. (Exception: a **documented** medical or family crisis may result in being excused from an exam, but this is only allowed **ONCE**. Further missed exams will count as a zero, regardless of the reason.)

**Accommodations for Students with Disabilities:** Students with hearing, visual, or mobility impairments; learning disabilities and attention deficit disorders; chronic illnesses and psychological impairments may be entitled to special accommodation under the Americans with Disabilities Act (ADA). Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility from the Office of Accessibility Services (OAS) which is located at L66 in the new building (**212-237-8031**). It is the student's responsibility to initiate contact with the office and to follow the established procedures for having the accommodation notice sent to the instructor. Faculty members are not allowed to work directly with students to attempt to accommodate disabilities and accommodations cannot be applied retroactively (after-the-fact).

**Grading:** Grades are derived from exams, classwork assignments, and homework assignments.

- **EXAMS (80%):** Four (4) lecture exams will be given for the semester. There are no make-up exams. If you miss an exam and do not have a *valid written excuse*, you will receive a score of zero (0).
- **HOMEWORK (10%):** Writing or on-line assignments will be given throughout the semester, as determined by your instructor.
- **CLASSWORK (10%):** Throughout the semester various in-class assignments in the form of quizzes or assignments as determined by the instructor. Quizzes will be based on material previously covered.

Once these grades are totaled, the score will be expressed as a percentage and the final letter grade will follow the grading scale below. There will **NOT be a CURVE!!!**

**Grading Scale:** The grade for the Bio101 course is based entirely on the class lecture. The grading scale here (→) is the official grading scale for this course. There will be no exceptions to this scale and grades will not be rounded up, except as explained here. Following all computations, the grade will be rounded to the nearest tenth of a point in Microsoft Excel (one decimal place, e.g., 97.2%). This is the final grade and no further manipulations will be made. The scale here (→) will then be strictly used. This means that a 72.9499% is a "C-" and a 72.9500% is a "C." These calculations are done by the computer, so there are no judgment calls or "leniency." You will get the grade you deserve. I will not accept requests to change the final grade once submitted (unless you have noticed a serious computational mistake)

|                |    |
|----------------|----|
| 93.0 and above | A  |
| 90.0 - 92.9    | A- |
| 87.0 - 89.9    | B+ |
| 83.0 - 86.9    | B  |
| 80.0 - 82.9    | B- |
| 77.0 - 79.9    | C+ |
| 73.0 - 76.9    | C  |
| 70.0 - 72.9    | C- |
| 67.0 - 69.9    | D+ |
| 63.0 - 66.9    | D  |
| 60.0 - 62.9    | D- |
| below 60.0     | F  |

Should you want to appeal your grade, **you must do so by going through the proper Grade Appeal procedure** which is explained at: <http://www.jjay.cuny.edu/academics/776.php>

### **Class Protocol:**

All electronic devices, except for those being used to take notes, must be turned off in class. Recording of the lectures is at the discretion of each instructor.

CUNY John Jay College expects students to maintain standards of personal integrity that are in harmony with the educational goals of the institution; to observe national, state, and local laws and University regulations; and to respect the rights, privileges, and property of other people. **ANYONE disrupting the class will be removed.**

Disruptive behavior will result in **points being taken from your final grade at the discretion of the instructor.**

- **Note on protocol to address the professor by email:**
  - It is inappropriate to send aggressive or rude emails to the professor. Reception of any such email from a student by the professor will result in points taken out of your final grade.
  - Emails to the professor must be addressed properly as "Hi/Hello/Dear, Dr.....;" with the subject of your email in the subject line.
  - Please include the course and section in the subject of your email (i.e. homework question for Bio101 section 02).

## John Jay College: CUNY, Biology 101, Fall 2013

| Week | Date          | Day          | Lecture  | Pages   |
|------|---------------|--------------|--|---------|
| 1    | Aug 29        | Thurs        | INTRODUCTION AND CLASS POLICIES                  |         |
|      | Sep 03        | Tues         | CHAPTER 2: THE CHEMICAL CONTEXT OF LIFE          | 30-45   |
|      | <b>Sep 05</b> | <b>Thurs</b> | <b>NO CLASS – SCHOOL CLOSED</b>                  |         |
| 2    | Sep 10        | Tues         | CHAPTER 2: CONTINUED                             |         |
|      | Sep 12        | Thurs        | CHAPTER 2: CONTINUED                             |         |
| 3    | Sep 17        | Tues         | CHAPTER 3: WATER AND ENVIRONMENT                 | 46-57   |
|      | Sep 19        | Thurs        | CHAPTER 3: CONTINUED                             |         |
| 4    | Sep 24        | Tues         | CHAPTER 4: CARBON & MOLECULAR DIVERSITY          | 58-67   |
|      | Sep 26        | Thurs        | CHAPTER 4: CONTINUED                             |         |
| 5    | <b>Oct 01</b> | <b>Tues</b>  | <b>EXAM #1: CHAPTERS 1-4</b>                     |         |
| 6    | Oct 03        | Thurs        | CHAPTER 5: MACROMOLECULES                        | 68-91   |
|      | Oct 08        | Tues         | CHAPTER 5: CONTINUED                             |         |
|      | Oct 10        | Thurs        | CHAPTER 5: CONTINUED                             |         |
| 7    | <b>Oct 15</b> | <b>Tues</b>  | <b>NO CLASS – SCHOOL FOLLOWS MONDAY SCHEDULE</b> |         |
| 8    | Oct 17        | Thurs        | CHAPTER 6: THE CELL: STRUCTURE & FUNCTION        | 94-124  |
|      | Oct 22        | Tues         | CHAPTER 6: CONTINUED                             |         |
|      | Oct 24        | Thurs        | CHAPTER 6: CONTINUED                             |         |
| 9    | <b>Oct 29</b> | <b>Tues</b>  | <b>EXAM #2: CHAPTERS 5-6</b>                     |         |
| 10   | Oct 31        | Thurs        | CHAPTER 7: CELL MEMBRANES                        | 125-141 |
|      | Nov 05        | Tues         | CHAPTER 7: CONTINUED                             |         |
|      | Nov 07        | Thurs        | CHAPTER 11: CELLULAR COMMUNICATION               | 206-227 |

**\*\* November 8th – LAST DAY TO RESIGN WITHOUT ACADEMIC PENALTY\*\***

|    |               |              |                                       |         |
|----|---------------|--------------|---------------------------------------|---------|
| 11 | Nov 12        | Tues         | CHAPTER 11: CONTINUED                 |         |
|    | Nov 14        | Thurs        | CHAPTER 8: INTRODUCTION TO METABOLISM | 142-161 |
| 12 | Nov 19        | Tues         | CHAPTER 8: CONTINUED                  |         |
|    | Nov 21        | Thurs        | CHAPTER 9: CELLULAR RESPIRATION       | 162-184 |
| 13 | <b>Nov 26</b> | <b>Tues</b>  | <b>EXAM #3: CHAPTERS 7, 8, and 11</b> |         |
|    | <b>Nov 28</b> | <b>Thurs</b> | <b>NO CLASS – THANKSGIVING BREAK</b>  |         |
| 14 | Dec 03        | Tues         | CHAPTER 9: CONTINUED                  |         |
|    | Dec 05        | Thurs        | CHAPTER 9: CONTINUED                  |         |
| 15 | Dec 10        | Tues         | CHAPTER 10: PHOTOSYNTHESIS            | 185-205 |
|    | Dec 12        | Thurs        | CHAPTER 10: CONTINUED                 |         |

### FINALS WEEK

### EXAM #4: CHAPTERS 9-10

|            |          |        |                   |                         |
|------------|----------|--------|-------------------|-------------------------|
| Section 01 | Tuesday  | Dec 17 | 8:00am – 10:00am  | In same room as lecture |
| Section 02 | Tuesday  | Dec 17 | 8:00am – 10:00am  | “                       |
| Section 03 | Thursday | Dec 19 | 10:15am – 12:15pm | “                       |
| Section 04 | Thursday | Dec 19 | 10:15am – 12:15pm | “                       |
| Section 05 | Tuesday  | Dec 17 | 4:00pm – 6:00pm   | “                       |
| Section 06 | Thursday | Dec 19 | 5:30pm – 7:30pm   | “                       |

## How to pass Biology 101

- In-class
  - Show-up, stay awake, LISTEN!!!
  - Take careful notes, but still listen!!!
  - Don't write ONLY what is on the lecture slides... listen carefully and jot down any point that I make that helps explain something.
- Homework
  - Complete the assigned reading BEFORE class!
  - Re-read your notes as soon as possible (that night if you can!)
  - Complete the homework assignments as you go
  - Make notecards (flash cards\*\*) of everything in the notes
    - It is best NOT to wait until exam time to do this!
    - But even if you DO wait until the exam, still... make the flashcards!
  - If you are struggling with a concept, come see me!!!
- Exam Studying
  - Read the notes yet AGAIN
  - Study your flashcards. Drill them MANY times until you REALLY know them all.
  - Go over the writing assignment that you completed.
  - Prepare answers to ALL of the possible short answer exam questions.
  - Study the figures from the book that I used in class.
  - Take the "self-quizzes" at the end of each chapter. Go find the answers.
  - Explore Mastering Biology and do all the activities.
  - Only study in groups if you stay focused the whole time

\*\*To make flash cards:

- Read through the notes
- Transfer notes to note cards, one concept at a time
- All exam material should be on the note cards
- Good Flash Cards: Definitions, Lists