**General Biology I (Bio 101)**

**Lecture: MW 9:30 – 10:45, AA293**

**Lab: Contact Lab Professor (Lab schedules may vary)**

**4 credits**

**Spring 2017**

Instructor: Dr. David Fernandez

Office: AA352 Row 5

E-mail: [dfernandez@nvcc.edu](mailto:XYZ@nvcc.edu)

Office hours:

Mondays/Wednesdays (Rm. 352): 9:00 – 9:30, 10:45 – 1:45; Fridays (Rm. 415): 9:00 – 12:00

Also See “Office Hours” document in BB.

\*Please email me to set up an appointment to ensure I am not already meeting with another student\*

*The purpose of this syllabus is to address relevant administrative concerns and policies. If you have questions of this nature throughout the semester, please consult this syllabus first, before directing these questions to your Professor.*

**Census Date: 1/26/17**

Last day to withdraw with refund

**Withdraw Date: 3/21/17**

Last day to withdraw without a grade penalty (receive a “W”)

**Course Texts**

This is an Open Educational Resource (OER) class. There is NO textbook to purchase. It will be provided free of charge and entirely online to registered students through the following link:

<https://courses.candelalearning.com/novabiology/>

However, students must still purchase the lab manual (see lab syllabus).

**How to Get the Most Out of This (and Probably Any) Course:**

Consider the following as a checklist for success. If you wish to improve your grade, first consult this checklist and perform an honest self-evaluation:

* Be present physically and mentally, from start to finish, at every class. Do NOT pack up your belongings before class officially ends.
* Study without distractions, at least 10 hours per week, outside of scheduled lecture or lab times.
* Check your NOVA email at least once per day.
* Turn off your phone/tablet/laptop unless using these items for note taking or reading PPTX slides.
* Ask and/or answer as many questions as you can.
* Come to office hours / email questions frequently.
* Take detailed notes during class\*.

**Course Overview (From College-Wide Course Content Summary)**

Bio 101 focuses on foundations in cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. This course emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. This course provides students with an opportunity to acquire fundamental knowledge of the principles and living systems and their applications to everyday life. The course is designed for both science and non-science majors. It may serve as a prerequisite for advanced biology courses, a laboratory science graduation requirement, or as transfer credit for a four-year institution.

**Fetal Pig**

There will be a mandatory fetal pig dissection in the laboratory portion of Bio 102, but not in Bio 101. All enrolled students must participate in order to get credit for these lab sessions. Fetal pigs can be purchased from the bookstore.

**Research Paper**

Additional instructions can be found in Bb under Course Documents. Each student will write a research paper on a topic of his or her choice, provided it directly relates to general biology. Papers should be 5-6 double-spaced pages, 1” margins on all sides, and either Times New Roman, Calibri, or Arial font. A references/works cited page must be included after the 5-6 written pages. Figures are encouraged but not required, and do not count towards the 5-6 written pages (up to a maximum of 8 pages including figures). Drafts may be submitted through Safe Assign in Blackboard. This will offer students a chance to determine if changes need to be made before submitting the final version. I will offer comments on the drafts through Safe Assign, and the program will analyze the drafts for similarities to other submitted works or online resources. Plagiarism is not acceptable, and will result in a 0 for this assignment. Therefore, it is in the students’ best interest to submit a draft (no later than 48 hours before the final copy is due –which is also submitted through Safe Assign on the due date).

**Exams**

Exams will be administered as designated in the schedule. You will have the entire class time to take your exams. If you arrive late to class, you will miss all or part of the time allotted for taking the exam, so come on time. During the course of the semester, four non-cumulative exams will be given, covering only the material since the proceeding exam. All cell phones and other such devises must be completely off for the duration of an exam. If you have a special circumstance (such as expecting a call from a doctor, a family emergency, etc…), you must notify me before the exam begins. Exam format will be multiple choice (scantron NOT required). There are NO make-up exams. However, the lowest exam grade will be dropped. If you will need to miss an exam for any reason, this is the exam that will be dropped.

\*\*\*The Honor Code applies at all times. Cheating during an exam in any form will not be tolerated. Wandering eyes, whispering, intentionally allowing other students to clearly see your exam will result in a 20% drop on that exam grade, for a first offense. A second offense will result in a 0 being given on that exam.\*\*\*

**Study Guides**

Study guides will be posted on Bb. Study guides serve as homework and as practice exams. They are aimed at focusing your efforts when preparing for each exam, but are not necessarily a cumulative list of topics. Study guides may be updated or changed at any point during the semester at the Instructor’s discretion. If something appears in your PPTX slides, either from Bb or (especially) during class, it is fair game to appear on your exam, so please study accordingly.

**Extra Credit**

Extra credit opportunities may be offered during the semester, at the discretion of the Professor. Exams may be curved at the discretion of the Professor. Extra credit may mean the difference between a letter grade and the next letter grade up, but only if the student’s overall grade is extremely close (probably within 1% of the next letter grade). Relying on extra credit is NOT the way to earn a grade.

**Time expectations for grading**

Exams and/or other assignments will be graded as soon as possible. The actual timeframe may vary. Inquiring into when you can expect to see your grade will NOT expedite the grading process. Rather, your focus should be on preparing for the next grading opportunity.

**\*Lectures/Note Taking**

Lecture PPTs will be posted on Bb under “Course Documents” prior to each class. The slides you see on the screen will be the same as the slides you have in your PPT notes, and so it may be unnecessary and counterproductive to try to copy every word from the screen during class. Instead, your notes should focus on concepts, themes, and points of emphasis made during class. Try to write down what isn’t already written for you.

**Grading Policy**

Grades are earned, not given. Grades reflect not only the student’s effort, but also comprehension and mastery of the material. Simply “working hard”, while necessary, does not warrant a specific grade. As such, “I think I deserve a grade of \_\_\_\_ because I worked so hard and always came to class” is not an acceptable argument, and will not hold any value. This is especially true at the end of the semester. The time to think about your grade is starting from the very first day, not waiting until the last one. If you need a grade of \_\_\_\_ to get into a specific program or further your career, I am here to help you achieve that. But you are the one responsible for earning that grade.

Bio 101 consists of lecture and laboratory. Attendance and participation will be taken into consideration for borderline grades (generally < 1% from the next grade up). Students at the border of a grade need not request or petition their grade to be rounded up. I will make that determination based on attendance, participation, and overall effort demonstrated throughout the semester.

Your overall grade (out of **1000 pts**) will be calculated as follows:

**Lecture (700 pts):**

Research Paper **= 100 points**

Four exams (lowest exam dropped; 200 pts each) **= 600 points**

**Lab (300 pts):**

See lab syllabus. Please note that lab may include quizzes, homework, and in-class assignments.

The shared/common lab website can be accessed with the following link:

<http://blogs.nvcc.edu/albio/>

\*Please note: this link may require you to copy and paste into a new window, rather than directly clicking it.

**Overall course grades will be assessed as follows:**

**A: > 90 %**

**B: 80-89.99%**

**C: 70-79.99%**

**D: 60-69.99%**

**F: < 59.99%**

**There are no separate attendance or participation grades, but these may factor into bumping up a borderline grade (usually if it is about 1.0 – 1.5% from the next letter grade up).**

**Tutoring**

Students are strongly encouraged to bring questions or points of confusion directly to the instructor. However, for additional assistance, you may contact the Academic Success Center (ASC), located in AA 229 (703-845-6363). They offer free tutoring for enrolled students. Please make an appointment with them before stopping by.

**Special Needs/Accommodations**

If you need special assistance, you may contact disability services (nvcc.edu/depts./disability). You may then bring me documentation from disability services at the beginning of the semester, at which time we will discuss any special accommodations to best suit your needs.

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| **Date** | **Topics** |
| 1/9, 1/11 | Intro & Syllabus / The Study of Life /  The Process of Science |
| **1/16**, 1/18 | **MLK Day** / The Chemical  Foundation of Life |
| 1/23, 1/25 | The Chemical Foundation  of Life / Biological Macromolecules |
| 1/30, **2/1** | Biological Macromolecules/ **Exam 1** |
| 2/6, 2/8 | Cell Structure & Function |
| 2/13, 2/15 | Cell Structure & Function |
| 2/20, 2/22 | Plasma Membrane |
| 2/27, **3/1** | Plasma Membrane / **Exam 2** |
| **3/6, 3/8** | **Spring Break** |
| 3/13, 3/15 | Cellular Respiration |
| 3/20, 3/22 | Photosynthesis |
| 3/27, 3/29 | Transcription & Translation |
| **4/3**, 4/5 | **Exam 3** / Cell Cycle & Cell Division |
| 4/10, 4/12 | Cell Cycle & Cell Division |
| 4/17, 4/19 | Genetics & Inheritance |
| 4/24, **4/26** | Evolution / **Papers Due** |
| **5/1 (9:30 – 11:10)** | **Exam 4**  **(NOT cumulative)** |