Introductory Biology 2 (Biology 102) Course Syllabus

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General Course Purpose: This course provides students with an opportunity to acquire fundamental knowledge of the principles of living systems and their applications to everyday life. The course is designed for both science and non-science majors. The course may serve as a prerequisite for advanced biology courses, a laboratory science graduation requirement, or as transfer credit for a four-year institution. This course focuses on anatomy and physiology of humans and other animals and covers some ecological topics and basic plant biology.

Textbook: The official textbook is: Urry et al., (2016). Biology in Focus. However, any of the college-level biology textbooks offered by Pearson or McGraw Hill will be fine. If you use a different one, and want my opinion, please ask.

Course prerequisites: BIO 101 is a prerequisite for BIO 102. Bio 102 may be taken without bio 101 with instructor approval. The student should be able to read and express him/herself both orally and in writing on a college freshman level as measured by a college English competency examination (ENG III or permission of instructor).

Evaluation: The lecture component of this course (totaling 70% of your final grade) will be based on 5 in-class exams. Exams are timed and consist of multiple-choice questions and true/false questions. Review sheets will be provided a few days before each exam. All exams are proctored and require the use of a webcam. The final exam in not cumulative. Lecture attendance via zoom is mandatory, is logged in canvas, and counts toward your final grade. Attendance points will be deducted if you don't attend the entire lecture. Please turn on your cameras on during lecture and participate (more about this below). Your lecture grade = points received/points possible x 100. Your lab grade = points received/points possible x 100. Your overall course grade = (0.7 x Lecture %) + (0.3 x Lab %). Your lab syllabus is a separate document it will outline graded lab activities and lab quizzes. There are no lab exams. There are no make-up exams, no exam grades are dropped, and you must be on time to class in order to receive full credit for attending. Please note that in order to receive credit for attending lecture you must attend the entire lecture, and you must respond to the poll (or verbal) questions that I employ (or ask). I can see how long you were signed into lecture and though polling I can see how engaged you were throughout the lecture. If I have a record of you signing in, then leaving and not signing back in, you won't receive attendance credit. All exams will be monitored, so you will need access to a computer with a webcam. College policy says that students are required to have a webcam and a computer or laptop capable of supporting remote learning. There is much information on the college website for support and you can find computer information and how to apply for computer funds, or financial aid for computers (search for Remote Student Support Services/Student FAQ). Besides monetary grants, students can request to borrow a laptop; the contact person for student laptop loans is Derrick Doctor, at ddoctor@nvcc.edu. I hope my policies don't seem too harsh, I just know from experience that there is a strong positive relationship between live lecture attendance and success in the course—and I want you to succeed!

Students with special needs: Students disabilities who may require accommodations are encouraged to contact contact <u>disability services</u> for help. If you require accommodations, please provide me with the documentation as soon as possible because cannot make accommodations unless I'm presented with the appropriate accommodations form.

Academic honesty and conduct: At Northern Virginia Community College, we expect the highest standards of academic honesty. Academic dishonesty is prohibited in accordance with the Student Conduct, Rights and Responsibilities described in the <u>student handbook</u>. NVCC's policies prohibits cheating on examinations, unauthorized access to examinations or course materials, plagiarism and other proscribed activities. <u>Students that violate plagiarism and academic honesty codes</u> will receive a failing grade and will be expelled from this course. If a student behaves in a hostile or disruptive manner, or

presents any indication that he/she is a harm to themselves or others, a formal request for assistance to <u>NOVACARES</u> will be submitted, and the police may be contacted.

Cancellation dates: In the event of class cancellation, we will resume where we left off during the next meeting. For example, if we were to have an exam scheduled on September 1, and there was a nationwide internet blackout, the exam would take place on our next scheduled meeting on September 7th.

Important dates, audit policy and incompletes (extensions): For critical dates regarding refunds, withdraw, holidays, etc. click <u>here</u>. Auditing this course requires instructor permission. Incompletes are only granted if the student's circumstances are dire (e.g. health issues, family issues, documented work conflict). Incompletes will only be granted if students have completed all lab assignments, 3 lecture exams, and all labs. Incompletes must be approved by the division dean and provost. Heath claims must be documented by medical professionals. Final exam times are different than your normal class meeting time. They are posted below.

Comments on submitting work: This is most applicable to lab, which will be covered elsewhere. Your work must (1) be free of common spelling errors and typos, and (2) contain one font only; please be consistent. If you cut and paste, clean it up before submitting. Use Times New Roman or similar font. Use only one color— black. When submitting work please label it as the following (as an attachment, use caps lock): LAST NAME_ASSIGNMENT_DATE. All written assignments must be proofed by the writing center staff before submission. They will provide you with verification of your meeting. For assistance with writing contact staff at academic center for reading and writing:

- 1. Bisdorf room AA 229; 703-845-6363
- 2. writinghelp@nvcc.edu
- 3. Writing Center Website

Emails and discussion board: Please use proper English when composing emails and posting discussions. Please keep writing somewhat formal, free of slang and grammatically correct. Please address me in the emails as Dr. or Professor Tupper, not as 'hey." It's fine to call me by my first name after the semester has ended, if you are not taking another class with me. I will reply to your emails within 24 business hours from its sent time. There are times when I miss an email, or it gets sent to my junkbox or "other" list. If you do not hear from me within 24 business hours, please just email me again. That said, due to the volume of email that I receive, I may not reply to your emails unless you ask me a specific question. You don't have to email me letting me know that you are going to be late to class, leave early from a class, if you are going to miss a class, or if you have missed class. Please do not email me asking for any logistics or instructions that I have explained in a previous class that you did not attend. For those types of questions, please use the discussion board to ask your classmates. Remember, our lectures are recorded. Additionally, please do not email me asking for extrasions. Due dates are fixed. Don't email me asking for extra credit: just complete the regular credited assignments on time and you will be fine. However, please email me if you have questions about the course content or if you want to set up a time to meet via zoom and discuss some of the course content. I will work hard to help you learn the material. Also, please email me if there are serious circumstances that are beyond your control that may need my attention (i.e. health or job-related issues or conflicts that may result a prolonged absence from class).

Introductory letter: Please write a brief statement and include something semi-personal about yourself, (e.g. a couple of hobbies/sports/major etc.). Also, if you feel up for it let us know where (if) you work and how many hours you work per week. I am sure your classmates (myself as well) are interested to know a little about you. Also include your name, and what you preferred to be called. Post this on the discussion board during the first week of the class.

General comments on success in this course, and miscellaneous things Doing well in this course requires a substantial commitment. This course covers, anatomy and physiology of plants and animals (mostly human), and it also covers ecology and ecological problems. By nature, these topics are challenging. You need to set aside quite a bit of time for reviewing lecture notes, reading, and studying after and before every lecture. The lab material is also time consuming. You will need another couple of hours a week to complete the lab material as well (see Table 1 below). I expect citations in your papers to follow CSE (<u>Council of Scientific Editors</u>) citation guidelines. If citations do not follow these guidelines, then points will be deducted. There are no exceptions. A few last comments: please make use of the discussion board and become friendly with other students in the class. It helps calm anxieties about the course if you have some peer support. Be on time to class. I may not check the zoom waiting room beyond 10 minutes after the start of lecture (and lab). Log in early to class to avoid being late due to some technical glitches or hardware issues. It's important that you approach this virtual class like you would an in-person class: It is critical that you take notes via pen and paper. For most people,

seeing information, hearing information, and physically writing information is superior to computer use when it comes to getting the information into your short-term memory. So, get a notebook, and be prepared to write.

Biology 102 requires participation. Here's what I mean: I can't create an enjoyable atmosphere via zoom by just lecturing to a computer screen. Although I am leading the class and have a fair amount of experience in biology, I like to think of biology class as all of us learning about life together, rather than me being the expert and you being the student. The concepts covered in this class are diverse and complicated and many of you who take the course likely know more about some aspects of biology through personal experience than I do. Every semester, I learn from you. So, since we are learning together, we need to communicate with each other on a regular basis. Consequently, I tend to ask a lot of questions, and do a much better job facilitating the class if your cameras are on, and you respond to questions (or ask questions of your own). <u>I understand that some people have social anxiety and would prefer to remain quiet for that reason. If you are one of those people, please let me know ahead of time and I will not ask you direct questions in class.</u>

In summary, let me say this: biology is awesome. It does, however, require a time commitment. If you put in the time, and are earnest with your efforts, you will fare well in the course, and be amazed and the knowledge that you acquire. One last note: there is a fair amount of memorization required in this course. Some people don't see the point of memorizing things. However, I feel that if you can't recall it, you certainly won't be able to understand it, or effectively communicate it. So, if you memorize some terms and structures, we can easily discuss how things work.

My Personal Research: Please visit my website to learn <u>about me</u>. You'll notice that I am a pretty active in biology and that my area of interest is conservation biology, and biological inventory and monitoring (herpetology and herpetological diseases). Together with <u>Dr</u>. <u>Christine Bozarth</u>, <u>Dr. David Fernandez</u>, and Prof. Lauren Fuchs I have been able to create a functional research program at NOVA. As NOVA students, you have a chance to become involved in my work, however there are some prerequisites that we can discuss in person should you be interested.

Tentative Lecture Schedule: Our lectures will be live, synchronous, and recorded. I will open zoom lectures 15 minutes before class starts. Only authenticated vccs users will be able to join so make sure you know how to do that ahead of time. Please note that the lecture exam dates are not fixed (excluding the final). Sometimes we take longer to get through the material than other times. The exam dates may change, but the material covered on each exam will not. I will let you know if there will be a change one week before each exam (i.e. if we must push an exam back by a week). Please note that the final exam meeting time is often different from your normal class session. This schedule is hyperlinked below.

Communication: An Overview of the Nervous and Endocrine Systems

- Nervous system and Sensory Perception (Ch 37 and 38)
- Endocrine system (Ch 32; this material is on a sperate quiz to be taken after exam 1)
- Exam 1 (February 1st @ 1:10 pm)

Movement, Support, Internal Transport and Defense

- Integument, skeletal and muscular systems (Ch 39)
- Circulatory, respiratory and immune systems (Ch 34 & 35)
- Exam 2 (March 1st @ 1:10 pm)

Intake, processing, and elimination

- Nutrition and digestion (Ch 33)
- Excretion, osmoregulation (Ch 32)
- Exam 3 (March 29th@ 1:10 pm)

Reproduction and Development

- Reproduction (Ch 36)
- Embryonic & fetal development (Ch 36)
- Exam 4 (April 19th@ 1:10 pm)

Ecology, Conservation and Plant Biology

- Intro to plant biology (selected material from chapters 29, 30 & 31)
- Ecology & conservation (selected material from chapters 40-43)
- <u>Exam 5 (May 3rd@ 12:00 pm)</u>