INTRODUCTORY BIOLOGY 2 (BIOLOGY 102): LECTURE (001N) SYLLABUS

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Course description: 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.

General course purpose: 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. Please note that if you are planning on transferring to <u>GMU for biology</u> then it is in your best interest to take Biology 110 (botany) and Biology 120 (Zoology) to fulfill your biodiversity requirement.

<u>Course prerequisites/corequisites</u>: 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).

Textbooks: You need the General Biology 2 (bio-102) lab manual called "Investigating Life" by Jill Caporale. This is in digital format and is administered through tophat. This is digital, the code for which can be purchased at the NVCC Annandale Campus bookstore. Please ask your lab instructor, Dr. Simpson, about this. "Biology in Focus" is the official textbook for lecture. Please note that all of your exam content comes from my lectures. The textbook is a great peer-reviewed reference.

Evaluation: The lecture component of this course (totaling 75% of your final grade) will be based on 5 in-class exams and eMind assignments. Exams consist of multiple choice, true/false, and short answer questions. Your lecture grade = points received/points possible x 100. Your overall course grade = (0.75 x Lecture %) + (0.25 x Lab %). There are no unexcused make-up exams, the final exam is not cumulative, and your lowest exam grade is dropped. Late eMind assignments are not accepted, and you must score 100% on each eMind assignment to receive full credit (you have up to 9 attempts per assignment). Exams are taken on campus with canvas on a laptop in class. You will need to download <u>respondus lockdown</u> browser before you take exams. If you need a laptop, nova may provide one to you (explained later). Please note that I do not use canvas to calculate your final grades. Do not rely on canvas to assess your grade. If you have concerns about your grade, see me.

Student needs: Students who may require accommodations are encouraged to contact the college center for accommodations and accessibility services. If you have an accommodation, please present that to me via email (or a hard copy). We can then discuss how I can best help you. NOVA can help with food, bills, rent, childcare, and mental health needs. If you need other financial advice, please click here. If you need a Sign Language interpreter or CART Captioning, contact Interpreter Services at: interpreters@nvcc.edu. If you need academic assistance or need college services but cannot make it to campus, please review NOVA's remote student support services to receive virtual assistance. Click on the following hyperlink if you are in the military or are a veteran and need assistance. If international students have specific questions, click here. Complaints of sex-based discrimination, sexual violence, domestic violence, dating violence, and sexual or gender-based harassment can be reported here. The campus police information is here.

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 <u>policy</u> prohibits cheating on examinations, unauthorized access to examinations or course materials, plagiarism, and other proscribed activities. Students that violate plagiarism and academic honesty codes will be <u>reported</u>. If a student behaves in a hostile or disruptive manner or presents any indication that they are a harm to themselves or others, a formal request for assistance to the <u>office of wellness and mental health</u> will be submitted, and the police may be contacted. Regarding covid: if you are feeling sick, please do not come to class. I will be unmasked while lecturing so that students can hear me. If I get sick and am out for an extended period, that will be problematic for all of us. Click here for covid-19 updates.

Cancellation dates: In the event of class <u>cancellation</u>, we will resume where we left off during the next meeting. For example, if we were to have an exam scheduled on September 1st, and there was a nationwide internet blackout, the exam would take place on our next scheduled meeting on September 7th. Since the college is not requiring covid vaccines for students, there is a chance we would have to transition to remote learning—at least temporarily. It would be best if you were ready to transition to that format beforehand. I will proctor all remote exams, so you will need access to a computer with a webcam, and you will need to download <u>respondus lockdown</u>. <u>Please click here for emergency alerts</u>.

Important dates, audit policy and incompletes: For critical dates regarding refunds, withdraw, holidays, etc., click here. 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) and if certain criteria are met. Incompletes must be approved by the division dean and provost. Health 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 written work: I will not be assigning research papers this semester. Much of the lab work, however, is written. You can ask the writing center staff for help with written lab assignments and for other classes.

Email policy and canvas discussions: Please use proper English when composing emails and posting discussions. Please keep writing somewhat formal, free of slang, and as grammatically correct as possible. Please address me in the emails as Dr. or Professor Tupper, not as 'hey." It is fine to call me by my first name if you are no longer taking courses with me. I will reply to your emails within 24-48 business hours from its sent time. There are times when I miss an email, or it gets sent to my junkbox. If you do not hear from me within 48 business hours, please just email me again. That said, I may not reply to your emails unless you ask me a specific question. Here are some course email guidelines:

- 1. Email me if you have questions about the course content or if you want to set up a time to meet and discuss some of the course content. I am more than happy to help you learn the material.
- 2. 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 in a prolonged absence from class). Smaller and less serious questions can be answered by emailing a classmate, or by using canvas discussions.
- 3. You don't have to email me if you are going to be late to class.
- 4. You don't have to email me if you are going to miss a class, or if you have missed class.
- 5. Please first ask your classmates or use canvas discussions to find out about any logistics/instructions that I have explained in a previous class that you did not attend. Then email me if there still is a concern.
- 6. Please do not email me asking for extensions on labs and other assignments.
- 7. Please do not email me asking for extra credit.
- 8. Please only use your official vccs email account

General comments on success in this course, and miscellaneous rules: Doing well in this course requires a substantial commitment. This course covers anatomy, physiology, ecology and plant biology. By nature, these topics are challenging. You need to set aside time for reviewing lecture notes, reading, and studying after and before every lecture (probably an additional 9 hours per week). Please make use of canvas discussions and become friendly with other students in the class. Peer support is very helpful. Please be on time to class. Lectures are not recorded. Recording devices will only be permitted for students with accommodations. Please note that I like interactive courses. I ask students a lot of questions. I do this because when a student explains a concept to other students (rather than just me), it can be quite helpful for learning. There's no penalty for getting a question wrong, and once you get used to my lecture style, you will see that I create a judgement free zone where everyone is welcome to participate. That said, if you have serious social anxiety and would prefer not to be called on, just let me know. I understand.

Tentative Lecture Schedule: Please note that the lecture and exam dates are not fixed (except 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 well in advance of each exam. Please note that the final exam meeting time is different from your normal class session. The final exam schedule is hyperlinked below.

Unit One: Communication: An Overview of the Nervous System and Notes on the Endocrine System

- Intro material, and the neuron and action potential—8/22, 8/24
- Anatomy of the nervous system—8/29
- Sensory perception—8/31
- Catch up and review —9/7
- Exam 1—9/12

Unit 2: Movement, Support, Internal Transport and Defense

- Muscular system and connections—9/14, 9/19
- Circulatory and respiratory systems and immunity—9/21, 9/26
- Catch up and review—9/28
- Exam2—10/3

Unit 3: Intake, Processing, and Elimination

- Excretion and Osmoregulation—10/5
- Digestion and Nutrition—10/12
- Catch up and review—10/17
- Exam 3—10/19

Unit 4: Reproduction

- Human reproductive anatomy and hormonal cycles—10/24, 10/26
- Human pregnancy and development—10/31, 11/2 (Fetal pig eMind activity and quiz and reproductive video and quiz)
- Catch up and review —11/7
- Exam 4—11/9

Unit 5: Ecology, Conservation and Plant Biology

- Plant evolution and diversity—11/14
- Plant transport systems and reproduction—11/16 (eMind plants)
- Populations, communities, ecosystems, and ecological succession—11/21
- Habitats, niche, and resource partitioning—11/28 (eMind ecology assignment)
- Barry Commoner's laws of ecology and ecological problems—11/30 (Rainforest video and quiz)
- Catch up and review −12/5
- Exam 5—12/12

