Northampton Community College
"Dream it. Believe it. Achieve it. Graduate"

COURSE TITLE: BIOS107-71/73/74 (Hybrid) Current semester: **SPRING 2021**

INSTRUCTOR INFORMATION: Instructor's name: **Dr B. Villar** Office location: Kapp Hall, 120H

Office contact number: **570-369-1845** e-mail address: **bvillar@northampton.edu**

Office Hours: **Mondays to Thursdays, 2-3 pm** via *ZOOM*
Jan 25 to March 16: use link https://zoom.us/j/91655624159
March 17 to May 6: use link https://zoom.us/j/92661815000

CLASS MEETINGS:

LECTURES: **Asynchronous (online, using Blackboard Collaborate, Zoom, Proctorio, Flipgrid, etc.)**

LABORATORIES: **On campus-Section 74 on Tuesdays; 8-10:50 am (Kapp 226)**
On campus-Section 71 on Wednesdays; 8-10:50 am (Kapp 226)
On campus-Section 73 on Thursdays; 8-10:50 am (Kapp 226)

? YOU ASK: If I miss my lab, can I attend during the other SECTION? ABSOLUTELY NOT!
These sections have been designed to ensure social distance and safety during this time of COVID

VERY IMPORTANT WHEN ON-CAMPUS LABORATORIES!

1- Complete the N**CC Health Check** (NCCGo app) and show to instructor before entering the lab
2- Bring student ID or request a wrist band as you enter the campus.
3- **Dress appropriately when attending the labs:**
   a. Allowed: Long pants, close shoes and long sleeve shirts.
   b. Not allowed: Shorts, skirts, tank tops, pants with holes, open shoes
4- **No foods or drinks are allowed inside the lab rooms**.

CAMPUS SAFETY PROTOCOLS DURING COVID PANDEMIC

Northampton Community College understands the importance of the health and safety of our campus community. In an effort to serve our students, we are taking continual efforts to reduce risk and increase cleanliness of our campus locations. As part of our effort to protect the campus community, all students, staff, and instructors are required to observe social distancing and personal protective equipment (PPE) guidelines as outlined by NCC at all times. **While in class, students must be seated appropriately to support social distancing, and must wear the appropriate masks. Should a student forget to bring one, they will be asked to visit the Covid Screening Station to obtain a face covering to attend the lab and be on campus.**
Students who fail to comply will be dismissed from the classroom and may be referred for sanctions. Students who require PPE accommodations should contact the Office of Disability Services to submit the appropriate documentation as soon as possible.
Should you become sick or be required to quarantine during the semester, notify the instructor immediately. Students might contact the Office of Disability Services in order to implement the appropriate accommodations required to submit course work during an extended absence.

College Closing Information: Visit www.northampton.edu, e-mail and text message alerts @ www.northampton.edu/alerts **Security Monroe 570-369-1911**
ACADEMIC AFFAIRS MONROE CAMPUS Precie Schroyer, Associate Dean: 570-369-1922 (1922) or pschroyer@northampton.edu Tom O'Connor, Assistant Dean: 570-369-1923 (1923) or toconnor@northampton.edu

Important Academic Policies/Dates – Monroe Campus, SPRING 2021		
Topic	**Description**	**Date**
Classes begin	Meet your classes: review class list, syllabus, lab rules, prerequisites (if any)	January 25
Last day to add classes	After this date students must get instructor and Dean permission to enter a class.	February 8, 7pm
Last day to drop classes	After this date, a student who drops a course is charged full tuition for the course.	February 15, 7pm
Withdrawal period	A W will appear on transcripts. No refunds. A Course W form must be submitted to the Enrollment Office (Monr)	February 16 to April 26
Mid-semester Progress	Performance feedback and Midterm Progress (S/U) for ALL students	March 5, 12 noon
Spring Break	**ONLY Monday-Tuesday, March 15-16**	
Registration Period for Next Semester	Check email from advisor: Priority Registration for Fall21 will open on March 29 with Early Access available to current military veterans.	Starting March 29
Last Day to Withdraw	Students may withdraw themselves or be withdrawn by faculty	April 26, 7pm
Classes End	Final Projects/Culminating Experiences cannot be due before Finals Week	May 4
Reading Day	No classes held, exams due, make-ups held.	May 5
Final written work and projects due		May 6, noon
Final Exam Period	Final exams dates/times to be determined by College and/or professor	May 6 to May 12
Final Grades DUE		May 14, noon
Last Day to apply for May graduation		May 19, 4 pm
Spring Commencement		May 27

? YOU ASK: What is the best way to reach my instructor if I have questions?

- **For personal** questions: ***email*** *the instructor (checked once a day, during office hours)*
- **For course-related questions:** Attend the **weekly *online open office hours*** or post your question in the designated area of the **Discussion Board** in Bb (***BIOS107 Frequent Q&A***)

REQUIRED COURSE MATERIALS:

Textbook with access code for online homework: Campbell Biology. 12th Edition. There are different options for this book, with access code to "Pearson Modified" platform. **You could use a previous textbook edition, but you will still need to purchase the access code for the current "Modified Pearson" platform to be able to complete the required weekly online homework for each chapter.**

These are several available options (the prices below are from the publisher, not the book store)

- 9780136858256 Combo-3 includes "Modified 18 week access code" AND eBook AND a redemption for a printed copy shipped directly to the student, $124.99 net.
- 9780135855836 Combo-2 includes "Modified 24 months access code" AND eBook. $109.99 net.
- 9780136858263 Combo-3 includes "Modified 24 month access code" AND eBook AND a redemption for a printed copy shipped directly to the student, $164.99 net.
- 9780135856109 NO combo, includes "Modified 24 month access code" alone. NO eBook. Only available direct to students. $74.99 (NO sold in bookstore).
- 9780135188743 NO combo, includes Textbook Hard copy bound. Print rental only. NO "Modified access code". $74.99.

Lab Handouts: Provided by instructor at the beginning of the semester and/or every week

Course Blackboard: This site is accessible from any computer with Internet access. Blackboard may be accessed from the Northampton Community College homepage through MyNCC or it may be accessed directly at: http://northampton.blackboard.com .

Important Areas to check in Blackboard for this course

TAB NAME	Content posted
Course Home	Announcements
Begin here	Instructor video explaining this course, other important resources
Syllabus	Syllabus with instructional plan for course and important due dates
Your Instructor	Office hours, instructor's email (also included in syllabus)
Learning Content	Weekly folders with: presentations for each chapter and additional resources, weekly instructor's videos; Chapter objectives,; Lab handouts and Rubrics
Discussion Board	Not weekly, but Some participation (see instruction plan)
Collaborate Ultra	Instructor's videos (if not posted under Learning Content)
Student Info	Blackboard help, academic/diversity policies, support services
My grades	To see grades (weekly updated,
Proctorio	To post exams that need online proctoring
Exams No Proctorio	To post exam without proctoring

Other needed supplies:

- Notebook and Folder/Binder for Lecture and Lab handouts, small calculator (very simple one), pencil, pen, eraser, stapler.

INSTRUCTIONAL SUPPORT:

- ***Tutoring*:** NCC Online Tutoring: learning-center@northampton.edu
- ***Library:*** Library to go, online service: https://www.northampton.edu/library.htm

TECHNICAL REQUIREMENTS FOR THIS COURSE

- Access to a computer to log in Blackboard and/or any other sites/platforms required by the instructor (ZOOM, Flipgrid, etc.)
- Internet access and Camera, printer

IMPORTANT!: Google docs are not supported by Blackboard. **Students are required to convert these files to the supported ones before submitting work.** To make this easier, use the following formats instead: word (doc, docx), pdf, ppt, xls, gif, jpeg.

? YOU ASK: Are there any computer labs I can use on campus this fall?

YES! Northampton Community College will have computer labs on all three campuses open for students, by appointment. Students are permitted to reserve a computer for up to 4 hours/day – one reservation per student per day. Due to social distancing restrictions, family members and friends are not permitted with students. Computer labs are only available for actively registered students. They are NOT open to community members
https://www.northampton.edu/student-services/computer-labs.htm

TECHNOLOGY SUPPORT

- NCC Help Desk: helpdesk@northampton.edu or 610-861-5413, **Monroe: Phone 570-369-1930**
- **Office of Online Learning and Instructional Technology: 610-332-6089**
    - Find us on Facebook and Twitter!
- https://www.northampton.edu/virtual-campus/online-learning-setup-guide.htm
- https://www.northampton.edu/student-services/technology-help.htm#olet
- Blackboard Assistance: Blackboard Help and Blackboard Collaborate Help

ADDITIONAL SUPPORT

NCC recognizes that life obstacles sometimes make it harder to be successful in class. Food pantries on both campuses (HOPE - Bethlehem Campus, Penn 122A and CARE - Monroe Campus, Kapp 10) are open to any student who has difficulty affording groceries or accessing sufficient food to eat every day. NCC's Spartan Aid program offers support for transportation, textbooks, and other student financial emergencies.

The Center for Civic and Community Engagement (College Center 236) encourages students who are experiencing financial challenges to contact Maryann Haytmanek at mhaytmanek@northampton.edu/610-861-5350 (Bethlehem Students) or James Colón (Keystone 135) at jcolon@northampton.edu/570-369-1818 (Monroe Students).

COURSE DESCRIPTION FROM NCC CATALOG:

Designed for science majors. Utilizing an evolutionary approach, the molecular basis of life will be studied, including such topics as the scientific method, chemistry, cell structure and function, cellular respiration, photosynthesis, mitosis, meiosis, genetics, and evolution.

COURSE OUTCOMES:

Biology I is the first half of the course sequence taken by biology majors who intent to transfer to four year institutions. Also, Biology I is considered a science general education elective, which is appropriate for non-biology majors. Students successfully completing this course will…

i- Understand the major principles of an introductory biology course which include:
   a. Hierarchal organization of life with emphasis on cells and their reproduction
   b. Basic chemical reactions of life, including energy flow, structure and function of biological macromolecules, and metabolic pathways
   c. Basic principles of genetics including the structure and replication of DNA, gene expression, inheritance patterns and advances in biotechnology
   d. Evolution explain the unity and diversity of life

ii- Use the scientific method to make observations, propose a hypothesis, identify experimental variables, design experiments, collect and analyze data, make conclusions and consider implications

iii- Develop skills in effective communication, library research and critical evaluation of scientific resources

iv- Demonstrate laboratory skills including microscopy, accurate measurement techniques, using equipment for collecting data and safe laboratory practices

v- Apply biological concepts to solve real-world problems

COURSE STRUCTURE:

This is a **hybrid course,** which means 50% of the class will be delivered asynchronously (not in real time) online via Blackboard and the other 50% (Laboratory and main exams) will take place in a laboratory classroom setting.

***LECTURES (*Asynchronous, on your own):** Learning materials will be posted to **Blackboard.** These could include instructional recordings/videos, discussion boards, assignments, quizzes, etc. You are expected to view instructional materials weekly and complete activities posted there by your professor in place of an additional live session.

LABORATORIES (Synchronous, in person attendance): In this sessions you will perform experiments every week, maintaining our new safety protocols. You will be provide a lab-book during the first meeting and will be required to complete and submit some lab work online every week. Part of the lab sessions will also be used to take some exams throughout the semester (see instructional plan)

CLASS EXPECTATIONS:

CLASS PREPARATION: Students are responsible for reading the assigned chapters, reviewing the PowerPoint files, and completing all assignments and lab activities. Reading, writing and spelling are required to successfully complete this course.

***ATTENDANCE*:** Each week in this course consists of one on-ground classroom meeting (for laboratory activities and main exams) and asynchronous instruction/assignments along with homework and/or long-term projects.
The on-ground classroom meeting and the asynchronous work count as one class session (or meetings) each, totaling two classes per week. Missing one more than twice the weekly meetings (more than five classes in total) may result in withdrawal from this course by the instructor.

Example: A student is attending the on-ground labs but has not completed the online work requested by the instructor (participation in discussion boards, watch lectures, submit homework, etc.) for 2 weeks. This means that he has 2 absences and he is at risk of being withdrawn the next time he misses.

?YOU ASK: Will arriving late to lab affect my lab attendance? **YES!** It will be counted as ½ absence if the lab has started and the instructor is already explaining it, and as a full absence if you arrive too late, missed most of it, or you just show up to take a test after a lab.

?YOU ASK: Can I make-up a missed lab? **NOT POSSIBLE!** Each lab will run only once and it has been designed considering weekly safely protocols. If you miss a lab, you will be responsible of retrieving the missed information from a classmate and completing the work on your own.

***COMMUNICATION*:** Announcements or messages sent from the college or through Blackboard will be sent to **your NCC e-mail address**. Be sure to regularly check your account for messages or have them forwarded to an account that you do regularly check.

?YOU ASK: How I email my professor? Use your **NCC email** always and include your **full name** in any messages sent to the instructor**.**

NETIQUETTE: Netiquette is the etiquette for electronic communications via email, threaded discussions on bulletin boards and online chats. This ensures that all students are being considerate of others, their time and opinions. Listed below are some guidelines regarding personal conduct in your virtual classroom communications: Responses to other students should address the ideas or work submitted not the person.
While using e-mail, discussion forums, and chat rooms, please observe the following guidelines:

- Show respect when interacting through electronic communications.
- Consider the vocabulary and length of electronic communications.
- Choose words carefully avoiding those with double meanings.
- Be aware that body language is not visible, so the tone of the electronic communications may be easily misinterpreted.
- Humor may be misinterpreted. Be sure to avoid profanity, sarcasm, and hurtful language.

- When evaluating or commenting on other student's work, please focus on the issue and do not attack the sender.
- Reread what you typed for spelling errors, tone, message content, grammar, sentence structure, etc.

For more information, please visit: http://www.albion.com/netiquette/corerules.html

ASSIGNMENTS: Students are required to complete all assignments required by the professor for the on-ground labs as well as for the asynchronous class on blackboard. **See instructional plan for details.** Pay special attention to **due dates**: Assignments must be submitted before by the due date posted by the instructor in order to earn full points!

?YOU ASK: Will late assignments be accepted? **YES BUT** any work submitted late, will lose automatically 50% of its value AND will be accepted only if the same work has not been already graded and returned to the other students.

EXAMS: **I**n this course, the main exams will be administered during the on-ground meetings for the labs**.** Whenever one of these exams is scheduled, the lab activity for that day will be shorter, to allow time to take this exam. Other exams and quizzes will be administered online. **See instructional plan for more details.**

?YOU ASK: Can I make-up a missed exam? **NOT POSSIBLE!** If an emergency happens, please communicate with the instructor ASAP and provide proof of absence. The instructor might be able to provide you with a make-up time at the end of the semester, but not immediately. Be aware that this will cause your grade to be lower during the semester until you take the exam.

GRADING: This course is based on a point system, with a to**tal value of 1000 points**, the sum of 500 points for the on-ground lab component and 500 points for the asynchronous online work. **See instructional plan for more details.**

?YOU ASK: Can I request extra-credit to bump my grade up? **NO!** According to NCC science cluster policy, **no extra credit** should be utilized in science courses. Instead, track your grade in a weekly basis and try not to miss any due dates or assignments to get full credit for all your work.

STARFISH: Starfish is an online student success and retention system accessible via My NCC that will allow your Instructor and Student Services to communicate with you on your course progress. Your Instructor will initiate flags in the system that will notify you and members of Support Services via email on issues such as class attendance, missed assignments, low grades and being in danger of failing the class. You may also receive a kudo for excellent or improved performance and as well as referrals to support services such as tutoring or advising.

WITHDRAWALS: If you decide to withdrawal from the course, it is your responsibility to fill out the appropriate paperwork and submit it to the records office. If you do not officially withdrawal from the course, your name will remain on the course roster and you will receive a failing grade (See calendar on page 2)

GENERAL COLLEGE POLICIES:*

These policies can be found in your student handbook, on the course page in Blackboard under the tab "Academic Policies and Procedures," or through the NCC website at https://northampton.smartcatalogiq.com/2018-2019/College-Catalog/Policies-College-Academic It is the student's responsibility to read, review, and understand these policies.

*Make sure you read carefully NCC policies regarding **academic honesty and plagiarism** during the first week of classes.

Disability Services: Northampton Community College encourages academically qualified students with disabilities to take advantage of its educational programs. Services and accommodations are offered to students with disabilities at no additional cost to facilitate accessibility to College programs and facilities. These services are based upon each student's individual needs and must be indicated by current documentation of disability. For more information, contact the Coordinator of Disability Services in Monroe at 570-369-1910 or view the Disability Services Webpage in the NCC home page (http://www.northampton.edu, Administration > Student Services > Students with Disabilities.

Commitment to Diversity: Northampton Community College is committed to creating and fostering a learning and working environment based on open communication and mutual respect. This is an integral part of the College's academic mission to enrich our students' educational experiences and prepare them to live in and contribute to a global society. If you encounter sexual harassment, sexual misconduct, sexual assault, or discrimination based on race, color, religion, age, national origin, ancestry, sex, sexual orientation, gender identity, or disability please contact the Equal Opportunity Office at 610-861-5496 or hwhitaker@northampton.edu

If you see it, report it (northampton.edu/reportit)

INSTRUCTIONAL PLAN:

How Student Final Grade Will Be Determined:

The course grade is based on the **sum of approx. 50% for lecture and 50% for the lab component**

	ASSIGMENTS AND TESTS	POINTS/EACH	TOTAL
LECTURE	3 Partial Exams (i, iii, iv)	50	3 x 50 = 150
	1 Comprehensive Final (i, iii, iv)	100	150
	18 Assignments Chapters	10	18 x 10 = 180
	5 Discussion Forums	5	5 x 5 = 25
LABORATORY	3 Partial Quizzes (ii, iii)	50	3 x 50 = 150
	1 Laboratory Final (ii, iii)	100	100
	13 Lab Handouts	5	13 x 10 = 130
	2 Lab reports	10 + 40	50
	1 Citizen Science/NEON Project	50	50
	1 Scientific Article Analysis	50	50
TOTAL POINTS			**1000 (**1035)

Grade Scale:

Each student's final grade will be assessed as follows (ranges based on earning a total of 1000 points):

940 or above =	A	800-829 =	B-	670-699 =	D+
900-939 =	A-	770-799 =	C+	600-669 =	D
870-899 =	B+	730-769 =	C	less than 600 =	F
830-869 =	B	700-729 =	C-		

Exams Ownership:

All exams given during this course are property of the instructor, to prevent plagiarism, and only the graded answers will be returned to the students, although the instructor might decide to give part of the tests back ocassionally. However, students might be able to revise their answers during office hours, in the presence of the instructor.

BRIEFLY EXPLANATION OF INSTRUCTIONAL PLAN

REQUIRED LECTURE WORK

TYPE	BRIEF EXPLANATION
3 Partial Exams	Combination of multiple choice and short answer questions, based on lecture content, discussed during the lecture videos by the instructor. To be taken online (specific format to be announced)
1 Comprehensive Final	Comprehensive final: Combination of multiple choice questions, based on selected material covered through the course. Might include additional short-answers (take-home portion) To be taken online (specific format to be announced)
18 Chapter Assignments (HW)	Requires Purchase access to "Modified Pearson" Can be access through Blackboard (Learning content) Posted weekly, according to textbook chapter being covered. To be completed before the deadline posted in the site
5 Discussion Forums	Requires student participation by posting comments, links or videos to suggested specific topics

REQUIRED LABORATORY WORK

TYPE	BRIEF EXPLANATION
3 Partial Quizzes	Combination of short answer questions, based on lab activities done during labs and the lab handouts. To be Taken during lab time (2nd part of lab)
1 Laboratory Final	Comprehensive final, combination of short answer questions, based on previous partial lab quizzes and lab handouts. To be Taken during lab time.
13 Lab Handouts	To be complete weekly during lab, to be finished at home. Due for points the following week
2 Lab Reports	Data for Mandatory Lab Report 1 will be collected on Week 2 Data for "Report of your choice" will be collected during weeks 6, 7 and 9
1 Citizen Science/NEON Project	All students will collaboratively participate in collecting data for a Project involving other colleges and universities. Data will be collected during lab time and at home Type of Project will be announced during the semester
1 Scientific Article Analysis and Presentation	Each student will select a topic of interest and will read a research article based on an experiment around that topic. A written report and an oral presentation (with a visual aid) will be created.

BIOS107- 74 TUESDAY ON-GROUND LABORATORIES

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

WEEK	DATES	LAB TOPICS AND ASSIGNMENTS	POINTS EARNED
1	Jan 26	**Tools for Scientific Inquiry, Metric System and Sci. Notation (ii, iv)** -Read over Lab 1 before coming to the lab -Complete Lab 1 Handout during lab and at home afterwards	
Notes:			
2	Feb 2	**The Process of Science (ii, iv)** -Read over Lab 2 before coming to the lab -Complete lab 2 Handout during lab and at home afterwards ***-Data Collection for Lab Report 1(Reaction Time)*** -Show instructor completed Lab 1 Handout to get credit **-Introduction to Scientific Article Analysis (SAA): Find topic**	___ / 10
Notes:			
3	Feb 9	**pH and Buffers (ii, iv)** -Read over Lab 3 before coming to the lab -Complete lab 3 Handout during lab and at home afterwards -Show instructor completed Lab 2 Handout to get credit **-Written *Lab Report 1 due (Reaction Time)*** **-Deadline to find topic for SAA**	___ / 10 ___ / **10**
Notes:			
4	**Feb 16**	**Macromolecules (ii, iv)** -Read over Lab 4 before coming to the lab -Complete lab 4 Handout during lab and at home afterwards -Show instructor completed Lab 3 Handout to get credit ***- QUIZ 1 (Weeks 1 to 3)****(Taken in lab after lab 4)*	___ / 10 ___ / **50**
Notes:			
5	Feb 23	**Using the Microscope (ii, iv)** -Read over Lab 5 before coming to the lab -Complete lab 5 Handout during lab and at home afterwards -Show instructor completed Lab 4 Handout to get credit **-Introduction to Citizen Science/NEON: Explain Project**	___ / 10
Notes:			

BIOS107- 74 TUESDAY ON-GROUND LABORATORIES (continuation)

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

6	Mar 2	**Diffusion & Osmosis (ii, iv)** -Read over Lab 6 before coming to the lab -Complete lab 6 Handout during lab and at home afterwards ***-Data Collection for Lab Report 2 (Osmosis celery/potato)*** -Show instructor completed Lab 5 Handout to get credit -**Citizen Science/NEON**	___ / *10*
Notes:			
7	Mar 9	**Enzymes (ii, iv)** -Read over Lab 7 before coming to the lab -Complete lab 7 Handout during lab and at home afterwards ***-Data Collection for Lab Report 3 (Catalase Enzyme)*** -Show instructor completed Lab 6 Handout to get credit -**Scientific Article Analysis: Written report due**	___ / *10* ___ / ***30***
Notes: Mar 16 No Lab (Spring Break)			
8	**Mar 23**	**Photosynthesis (ii, iv)** -Read over Lab 8 before coming to the lab -Complete lab 8 Handout during lab and at home afterwards -Show instructor completed Lab 7 Handout to get credit ***- QUIZ 2 (Weeks 4 to 7)****(Taken in lab after lab 8)*	___ / *10* ___ / ***50***
Notes:			
9	Mar 30	**Alcoholic Fermentation w/Yeast: (ii, iii, iv)** -Read over Lab 9 before coming to the lab -Complete lab 9 Handout during lab and at home afterwards ***-Data Collection for Lab Report 4*** *(Yeast Fermentation**)*** -Show instructor completed Lab 8 Handout to get credit **-Citizen Science/NEON**	___ / *10*
Notes:			
10	Apr 6	**DNA and Genetics (ii, iv)** -Read over Lab 10 before coming to the lab -Complete lab 10 Handout during lab and at home afterwards -Show instructor completed Lab 9 Handout to get credit **-Scientific Article Analysis: Submit presentation**	___ / *10* ___ / ***20***
Notes:			

BIOS107- 74 TUESDAY ON-GROUND LABORATORIES (continuation)

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

11	Apr 13	**Electrophoresis and DNA Fingerprinting (ii, iv)** -Read over Lab 11 before coming to the lab -Complete lab 11 Handout during lab and at home afterwards -Show instructor completed Lab 10 Handout to get credit ***-Written Lab Report of your choice (2, 3 or 4) due*** **-Citizen Science/NEON**	___ / *10* ___ / ***40***
Notes:			
12	**Apr 20**	***-QUIZ 3 (Weeks 8 to 11)*** -Show instructor completed Lab 11 Handout to get credit -**Citizen Science/NEON**	___ / ***50*** ___ / *10*
Notes: Fingerprint Ridge Count (Lab 12, at home, optional)			
13	Apr 27	**Human Evolution: skulls(ii, iv)** -Read over Lab 13 before coming to the lab -Complete lab 13 Handout during lab and at home afterwards -Show instructor completed Lab 12 Handout to get credit -**Citizen Science/NEON: Report and Final Credit**	___ / *10* ___ / ***50***
Notes:			
14	**May 4**	***LAB FINAL (Comprehensive)*** -Show instructor completed Lab 13 Handout to get credit	___ / ***100*** ___ / *10*
Notes:			

BIOS107- 71 WEDNESDAY 0N-GROUND LABORATORIES

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

WEEK	DATES	LAB TOPICS AND ASSIGNMENTS	POINTS EARNED
1	Jan 27	**Tools for Scientific Inquiry, Metric System and Sci. Notation (ii, iv)** **-**Read over Lab 1 before coming to the lab -Complete Lab 1 Handout during lab and at home afterwards -Complete and submit Metric Worksheet in Bb	
Notes:			
2	Feb 3	**The Process of Science (ii, iv)** -Read over Lab 2 before coming to the lab -Complete lab 2 Handout during lab and at home afterwards ***-Data Collection for Lab Report 1(Reaction Time)*** -Show instructor completed Lab 1 Handout to get credit **-Introduction to Scientific Article Analysis (SAA): Find topic**	*___ / 10*
Notes:			
3	Feb 10	**pH and Buffers (ii, iv)** -Read over Lab 3 before coming to the lab -Complete lab 3 Handout during lab and at home afterwards -Show instructor completed Lab 2 Handout to get credit **-Written *Lab Report 1 due (Reaction Time)*** **-Deadline to find topic for SAA**	*___ / 10* *___ / **10***
Notes:			
4	**Feb 17**	**Macromolecules (ii, iv)** -Read over Lab 4 before coming to the lab -Complete lab 4 Handout during lab and at home afterwards -Show instructor completed Lab 3 Handout to get credit ***- QUIZ 1 (Weeks 1 to 3)****(Taken in lab after lab 4)*	*___ / 10* *___ / **50***
Notes:			
5	Feb 24	**Using the Microscope (ii, iv)** -Read over Lab 5 before coming to the lab -Complete lab 5 Handout during lab and at home afterwards -Show instructor completed Lab 4 Handout to get credit **-Introduction to Citizen Science/NEON: Explain Project**	*___ / 10*
Notes:			

BIOS107- 71 WEDNESDAY 0N-GROUND LABORATORIES (continuation)

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

6	Mar 3	**Diffusion & Osmosis (ii, iv)** -Read over Lab 6 before coming to the lab -Complete lab 6 Handout during lab and at home afterwards ***-Data Collection for Lab Report 2 (Osmosis celery/potato)*** -Show instructor completed Lab 5 Handout to get credit -**Citizen Science/NEON**	___ / 10
Notes:			
7	Mar 10	**Enzymes (ii, iv)** -Read over Lab 7 before coming to the lab -Complete lab 7 Handout during lab and at home afterwards ***-Data Collection for Lab Report 3 (Catalase Enzyme)*** -Show instructor completed Lab 6 Handout to get credit -**Scientific Article Analysis: Written report due**	___ / 10 ___ / ***30***
Notes: Mar 16 No Lab (Spring Break)			
8	**Mar 17**	**Photosynthesis (ii, iv)** -Read over Lab 8 before coming to the lab -Complete lab 8 Handout during lab and at home afterwards -Show instructor completed Lab 7 Handout to get credit ***- QUIZ 2 (Weeks 4 to 7)****(Taken in lab after lab 8)*	___ / 10 ___ / ***50***
Notes:			
9	Mar 24	**Alcoholic Fermentation w/Yeast: (ii, iii, iv)** -Read over Lab 9 before coming to the lab -Complete lab 9 Handout during lab and at home afterwards ***-Data Collection for Lab Report 4*** *(Yeast Fermentation**)*** -Show instructor completed Lab 8 Handout to get credit **-Citizen Science/NEON**	___ / 10
Notes:			
10	Mar 31	**DNA and Genetics (ii, iv)** -Read over Lab 10 before coming to the lab -Complete lab 10 Handout during lab and at home afterwards -Show instructor completed Lab 9 Handout to get credit **-Scientific Article Analysis: Submit presentation**	___ / 10 ___ / ***20***
Notes:			

BIOS107- 71 WEDNESDAY 0N-GROUND LABORATORIES (continuation)

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

11	Apr 7	**Electrophoresis and DNA Fingerprinting (ii, iv)** -Read over Lab 11 before coming to the lab -Complete lab 11 Handout during lab and at home afterwards -Show instructor completed Lab 10 Handout to get credit ***-Written Lab Report of your choice (2, 3 or 4) due*** **-Citizen Science/NEON**	___ / *10* ___ / ***40***
Notes:			
12	**Apr 14**	***-QUIZ 3 (Weeks 8 to 11)*** -Show instructor completed Lab 11 Handout to get credit -**Citizen Science/NEON**	___ / ***50*** ___ / *10*
Notes: Fingerprint Ridge Count (Lab 12, at home, optional)			
13	Apr 21	**Human Evolution: skulls(ii, iv)** -Read over Lab 13 before coming to the lab -Complete lab 13 Handout during lab and at home afterwards -Show instructor completed Lab 12 Handout to get credit -**Citizen Science/NEON: Report and Final Credit**	___ / *10* ___ / ***50***
Notes:			
14	**Apr 28**	***LAB FINAL (Comprehensive)*** -Show instructor completed Lab 13 Handout to get credit	___ / ***100*** ___ / *10*
Notes:			

BIOS107- 73 THURSDAY 0N-GROUND LABORATORIES

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

WEEK	DATES	LAB TOPICS AND ASSIGNMENTS	POINTS EARNED
1	Jan 28	**Tools for Scientific Inquiry, Metric System and Sci. Notation (ii, iv)** **-**Read over Lab 1 before coming to the lab -Complete Lab 1 Handout during lab and at home afterwards -Complete and submit Metric Worksheet in Bb	
Notes:			
2	Feb 4	**The Process of Science (ii, iv)** -Read over Lab 2 before coming to the lab -Complete lab 2 Handout during lab and at home afterwards ***-Data Collection for Lab Report 1(Reaction Time)*** -Show instructor completed Lab 1 Handout to get credit **-Introduction to Scientific Article Analysis (SAA): Find topic**	___ / *10*
Notes:			
3	Feb 11	**pH and Buffers (ii, iv)** -Read over Lab 3 before coming to the lab -Complete lab 3 Handout during lab and at home afterwards -Show instructor completed Lab 2 Handout to get credit **-Written *Lab Report 1 due (Reaction Time)*** **-Deadline to find topic for SAA**	___ / *10* ___ / ***10***
Notes:			
4	**Feb 18**	**Macromolecules (ii, iv)** -Read over Lab 4 before coming to the lab -Complete lab 4 Handout during lab and at home afterwards -Show instructor completed Lab 3 Handout to get credit ***- QUIZ 1 (Weeks 1 to 3)****(Taken in lab after lab 4)*	___ / *10* ___ / ***50***
Notes:			
5	Feb 25	**Using the Microscope (ii, iv)** -Read over Lab 5 before coming to the lab -Complete lab 5 Handout during lab and at home afterwards -Show instructor completed Lab 4 Handout to get credit **-Introduction to Citizen Science/NEON: Explain Project**	___ / *10*
Notes:			

BIOS107- 73 THURSDAY 0N-GROUND LABORATORIES

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

6	Mar 4	**Diffusion & Osmosis (ii, iv)** -Read over Lab 6 before coming to the lab -Complete lab 6 Handout during lab and at home afterwards ***-Data Collection for Lab Report 2 (Osmosis celery/potato)*** -Show instructor completed Lab 5 Handout to get credit -**Citizen Science/NEON**	___ / 10
Notes:			
7	Mar 11	**Enzymes (ii, iv)** -Read over Lab 7 before coming to the lab -Complete lab 7 Handout during lab and at home afterwards ***-Data Collection for Lab Report 3 (Catalase Enzyme)*** -Show instructor completed Lab 6 Handout to get credit -**Scientific Article Analysis: Written report due**	___ / 10 ___ / ***30***
Notes: Mar 16 No Lab (Spring Break)			
8	**Mar 18**	**Photosynthesis (ii, iv)** -Read over Lab 8 before coming to the lab -Complete lab 8 Handout during lab and at home afterwards -Show instructor completed Lab 7 Handout to get credit ***- QUIZ 2 (Weeks 4 to 7)****(Taken in lab after lab 8)*	___ / 10 ___ / ***50***
Notes:			
9	Mar 25	**Alcoholic Fermentation w/Yeast: (ii, iii, iv)** -Read over Lab 9 before coming to the lab -Complete lab 9 Handout during lab and at home afterwards ***-Data Collection for Lab Report 4*** *(Yeast Fermentation**)*** -Show instructor completed Lab 8 Handout to get credit **-Citizen Science/NEON**	___ / 10
Notes:			
10	Apr 1	**DNA and Genetics (ii, iv)** -Read over Lab 10 before coming to the lab -Complete lab 10 Handout during lab and at home afterwards -Show instructor completed Lab 9 Handout to get credit **-Scientific Article Analysis: Submit presentation**	___ / 10 ___ / ***20***
Notes:			

BIOS107- 73 THURSDAY 0N-GROUND LABORATORIES

COURSE CALENDAR FOR LABORATORY ACTIVITIES, QUIZZES AND ASSIGNMENTS*

11	Apr 8	**Electrophoresis and DNA Fingerprinting (ii, iv)** -Read over Lab 11 before coming to the lab -Complete lab 11 Handout during lab and at home afterwards -Show instructor completed Lab 10 Handout to get credit ***-Written Lab Report of your choice (2, 3 or 4) due*** **-Citizen Science/NEON**	___ / *10* ___ / ***40***
Notes:			
12	**Apr 15**	***-QUIZ 3 (Weeks 8 to 11)*** -Show instructor completed Lab 11 Handout to get credit -**Citizen Science/NEON**	___ / ***50*** ___ / *10*
Notes: Fingerprint Ridge Count (Lab 12, at home, optional)			
13	Apr 22	**Human Evolution: skulls(ii, iv)** -Read over Lab 13 before coming to the lab -Complete lab 13 Handout during lab and at home afterwards -Show instructor completed Lab 12 Handout to get credit -**Citizen Science/NEON: Report and Final Credit**	___ / *10* ___ / ***50***
Notes:			
14	**Apr 29**	***LAB FINAL (Comprehensive)*** -Show instructor completed Lab 13 Handout to get credit	___ / ***100*** ___ / *10*
Notes:			

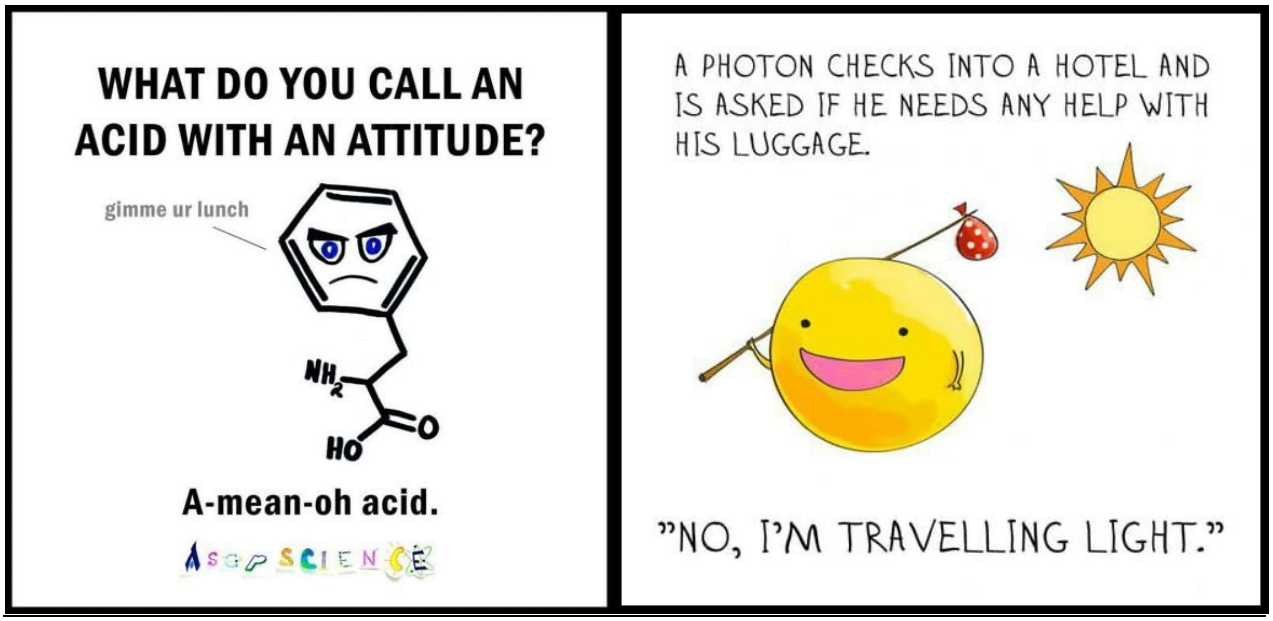
BIOS107- 74/71/73 ASYNCHRONOUS WORK, EXAMS AND DUE DATES FOR ASSIGMENTS

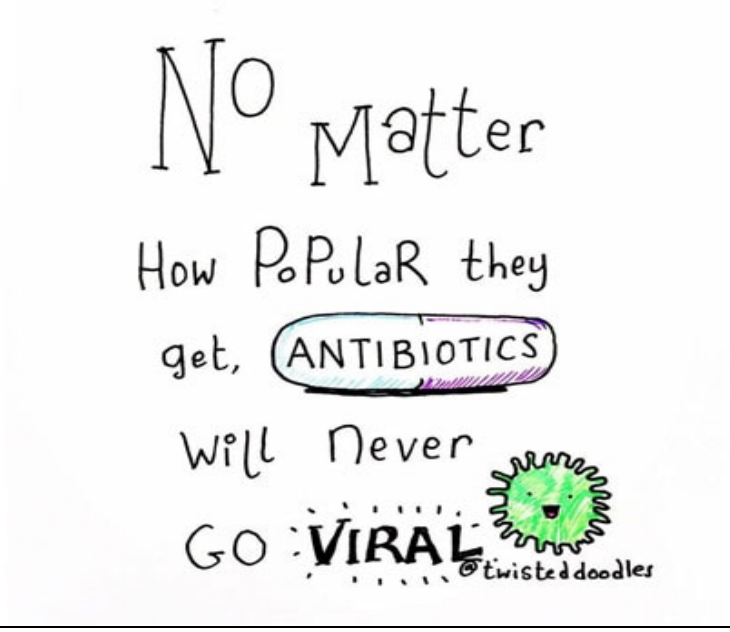
WEEK DATES	LECTURE TOPICS AND ASSIGNMENTS	POINTS EARNED
1 Jan 25 to Jan 31	**Course Introduction: What is Biology? (i,ii) Scientific Inquiry (i, ii, iii, iv, v)** -View videos instructor Week 1 in Bb (Learning Content) -Read textbook Ch 1 and outline in Bb (Learning Content) -Complete Homework Ch 1 in Bb (Learning Content, Modified Pearson) -Post in Discussion Board, Forum Week 1: "Introduce Yourself"(Flipgridvideo) and "Ethics in Science"	 ____/10 ____/5 ____/5
Notes:		
2 Feb 1 to Feb 7	**The Chemistry of Life (i, iii, v) and Water so important for life (i, iii, v)** -View videos instructor Week 2 in Bb (Learning Content) -Read textbook Ch 2 and Ch 3, and outline in Bb (Learning content) -Complete Homework Ch 2 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 3 in Bb (Learning Content, Modified Pearson)	 ____/10 ____/10
Notes:		
3 Feb 8 to Feb 14	**Carbon: The backbone of life (i, iii, v) and The molecules of life (i, iii, v)** -View videos instructor Week 3 in Bb (Learning Content) -Read textbook Ch 4 and Ch 5, and outline in Bb (Learning Content) -Complete Homework Ch 4 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 5 in Bb (Learning Content, Modified Pearson)	 ____/10 ____/10
Notes:		
4 Feb 15 to Feb 21	***Review for Exam 1*** -View videos instructor Week 4 (if any, Collaborate Ultra) ***-EXAM 1 (Weeks 1 to 3)*** *(Format to be announced)*	 ____/**50**
Notes:		
5 Feb 22 to Feb 28	**A tour inside the cell and Transport Across Cell Membranes(i, iii, v)** -View videos instructor Week 5 in Bb (Learning Content) -Read textbook Ch 6 and Ch 7, and outline in Bb (Learning Content) -Complete Homework Ch 6 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 7 in Bb (Learning Content, Modified Pearson) -Post in Discussion Board, Forum Week 5: "Biochemistry of Diets"	 ____/10 ____/10 ____/5
Notes:		

6 Mar 1 to Mar 7	**The energy of life: metabolism(i, iii,v) and Photosynthesis (i, iii, v)** -View videos instructor Week 6 in Bb (Learning Content) -Read textbook Ch 8 and Ch 10, and outline in Bb (Learning Content) -Complete Homework Ch 8 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 10 in Bb (Learning Content, Modified Pearson)	 *____/10* *____/10*
Notes:		
7 Mar 8 to Mar 14	**Cellular Respiration/Fermentation (i, iii)** -View videos instructor Week 7 in Bb (Learning Content) -Read textbook Ch 9 and outline in Bb (Learning Content) -Complete Homework Ch 9 in Bb (Learning Content, Modified Pearson)	 *____/10*
Notes: SPRING BREAK March 15-March 16		
8 Mar 17 to Mar 23	***Review for Exam 2*** -View videos instructor Week 8 (if any, Collaborate Ultra) ***-EXAM 2 (Weeks 4 to 7)*** *(Format to be announced)*	 *____/**50***
Notes:		
9 Mar 24 to Mar 30	**Cells Divide (i, iii, v) and Meiosis and Sexual life cycles (i, iii, v)** -View videos instructor Week 9 in Bb (Learning Content) -Read textbook Ch 12 and Ch 13, and outlines in Bb (Learning Content) -Complete Homework Ch 12 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 13 in Bb (Learning Content, Modified Pearson) -Post in Discussion Board, Forum Week 9: "Cancer treatments"	 *____/10* *____/10* *____/5*
Notes:		
10 Mar 31 to Apr 6	**Mendel & the Gene Idea and Chromosomal basis of Inheritance (i, iii, v)** -View videos instructor Week 10 in Bb (Learning Content) -Read textbook Ch 14 and Ch 15, and outlines in Bb (Learning Content) -Complete Homework Ch 14 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 15 in Bb (Learning Content, Modified Pearson)	 *____/10* *____/10*
Notes:		

11 Apr 7 to Apr 13	**Understanding the DNA (i, iii, v)** -View videos instructor Week 11 in Bb (Learning Content) -Read textbook Ch 16 and outline in Bb (Learning Content) -Complete Homework Ch 16 in Bb (Learning Content, Modified Pearson)	____/10
Notes:		
12 Apr 14 to Apr 20	***Review for Exam 3*** -View videos instructor Week 12 (if any, Collaborate Ultra) ***-EXAM 3 (Weeks 9 to 11)*** *(Format to be announced)*	____/**50**
Notes:		
13 Apr 21 to Apr 27	**From Genes to Proteins and Regulating Genes (i, iii, v)** -View videos instructor Week 13 in Bb (Learning Content) -Read textbook Ch 17 and outline in Bb (Learning Content) -Read textbook Ch 18 and outline in Bb (Learning Content) -Complete Homework Ch 17 in Bb (Learning Content, Modified Pearson) -Complete Homework Ch 18 in Bb (Learning Content, Modified Pearson) -Post in Discussion Board, Forum Week 13: "Biology Impacts in Society"	____/10 ____/10 ____/5
Notes:		
14 Apr 28 to May 4	**DNA Technology (i, iii, v) and Overview of Evolution (i, iii, v)** -View videos instructor Week 14 in Bb (Learning Content) -Read Chapter 20 and outline in Bb (Learning Content) -Complete Homework Ch 20 in Bb (Learning Content, Modified Pearson) **-Outline Review for FINAL EXAM** (i, ii, iii, iv, v)	____/10
Notes:		
Final Examination Period, May 6-12 -Complete evolution handout in Bb (TBA) -Complete Reflection Questions in Bb (TBA)		**150**
Notes: Specific Date/Time for Final Exam to be announced		

This syllabus is offered as a guide; however, it is subject to change throughout the semester as needed. Additional topics and assignments might also be added.


WHAT DO YOU CALL AN ACID WITH AN ATTITUDE?
gimme ur lunch
A-mean-oh acid.
ASAP SCIENCE
A PHOTON CHECKS INTO A HOTEL AND IS ASKED IF HE NEEDS ANY HELP WITH HIS LUGGAGE.
"NO, I'M TRAVELLING LIGHT."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How PoPulaR they
get, ANTIBIOTICS
will Never
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