BIO 1500: Basic Life Diversity
Course Syllabus, Fall 2018

Instructors:	Dr. Nataliya Turchyn	Dr. Tom Dowling
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Office hours:	(9/11 - 10/29): MW 12:00 – 1:00 pm TTh 2:15 – 3:45 pm	(8/29 to 9/10, after 10/29): W 9:30 – 11:00 am Th 1:30 – 3:00 pm

CLASS MEETING LOCATION

0146 DeRoy Auditorium

CLASS MEETING TIME

Tuesday-Thursday 4:00 – 5:15 pm

COURSE DESCRIPTION AND OBJECTIVES

BIO 1500 is the first of two courses in a two-semester sequence of introductory biology for biology and science majors, including science education and pre-allied health students. This course provides an overview of the diversity of life on Earth and the processes that impact it. The primary objective of BIO 1500 is to expose students to a great variety of plants, fungi, protists, and animals, examining their structure, function, growth, evolution, and distribution.

Biology is the study of organisms as well as the composition of those organisms. Whether you have aspirations to be a doctor, a lawyer, a teacher, an engineer, or a janitor, having an appreciation of the life around you is a critical skill that is invaluable both to yourself and the world around you. Students must take both lecture and laboratory components.

STUDENT LEARNING OUTCOMES

We are focused on the following major questions:

1. What is biodiversity?
2. Where does biodiversity come from?
3. What influences levels of biodiversity?
4. Why is biodiversity important?

Upon successful completion of the course, students should be able to:

1. Recognize major differences between plants, fungi, protists, and animals.
2. Demonstrate an understanding of their structure and function, and how they are adapted to and interact with their environment.

3. Appraise the relevance of plants, fungi, protists, and animals to human's everyday life and critically consider modern biological issues that incorporate them.
4. Develop microscope and gross dissection skills, and work as part of a team in the laboratory.
5. Enter advanced biology courses with a solid foundation of the diversity of life on this planet.

COURSE PREREQUISITES
Students are required to have completed EITHER BIO 1050 (Introduction to Life) with a grade of C- or above; OR have an ACT score of 24 or higher; OR have a passing score on the Biology placement examination. Students who managed to enroll in this course without satisfying these prerequisites are not likely to succeed in this course and for this reason will be required to drop it. Students who have questions about these prerequisites should see one of the Biology Department's undergraduate advisors during the first week of class.

COURSE CREDITS
This is a four (4) credit course. Students must register for both the lecture and the lab.

REQUIRED TEXTS:
- Biology, 11th edition (2016), by Raven, Johnson, Mason, Losos, and Singer.
- Biological Investigations, by Dolphin. 2014-2015 edition.

Other texts and books listed as "Recommended" by the bookstore are optional and are not required; students should use their best judgement as to whether these additional resources will help them to succeed in the course.

OFFICE HOURS AND COMMUNICATION
Dr. Turchyn will be available for office hours MW 12:00 – 1:00 pm and TTh 2:15 – 3:45pm during times when she is leading the class; Dr. Dowling will be available for office hours W 9:30 – 11:00 am and Th 1:30 – 3:00 pm during times when he is leading the class. Mutually convenient appointments at other times are welcomed by either instructor and may be arranged by e-mail.

Please do not phone the instructors with questions. In addition, you may e-mail either instructor questions or comments. Responses are usually provided within a day or two. Given the number of students in the class, you should not expect an immediate response, so try to avoid last-second or rushed questions. We will not reply to e-mails when the answer can be found in the syllabus or on Canvas (www.canvas.wayne.edu).

A tentative lecture schedule is attached. Assigned readings are fair game on exams and should be completed prior to coming to class. Your instructors reserve the right to re-arrange lecture topics if needed to cover all necessary material during the course of the semester.

Please do not e-mail either instructor with questions regarding your laboratory section or its activities and grading system. Those questions should be directed towards your GTA or to Michelle Serreyn (michelle.serreyn@wayne.edu), the Laboratory Coordinator for the course. E-mail questions about the lab sent to the lecturers will go unanswered. Please learn your GTA's name early in the course.

You do not need to report to the instructor that you will be missing class (such e-mails are quite cumbersome). Attendance is expected and highly encouraged, but is not taken, and is left to your discretion as a college student. You are responsible for all material presented during lecture (including in-class discussions stimulated by student questions) regardless of your attendance; how you obtain the material is up to you. You must decide what works best for your study habits.

In addition to your two instructors, the course has been assigned a student supplemental instructor (SI) who will be announced early in the course. Supplemental Instructors work alongside faculty in traditionally difficult classes and help students organize classroom materials and notes and develop effective study strategies. They have recently taken the course, attend all lecture sessions, and organize and hold their own study sessions with students. As they are likely easier to reach for quick help, you are encouraged to approach your SIs with questions about the lecture material as you would your instructors. You will be provided in class with directions on how to contact the SIs.

EXAMS

There will be FOUR in-class midterm examinations of true/false or multiple choice questions, each worth 165 points. There will also be one optional cumulative final exam (also worth 165 points) that will cover material presented in the entire course. Only the four highest scores will count towards your final grade (your lowest score will be dropped). Lecture exams cover material presented in class and assigned in readings of the textbook. Exams MUST be taken during your assigned class period.

Exam dates will be **Tuesday, September 25th; Thursday, October 18th, Tuesday, November 13th,** and **Thursday, December 6th**. Your only opportunity to make up an exam will be taking the optional, cumulative final exam on in the same room as the regular class room. The final exam will be **Monday, December 18th from 2:45 – 3:45 pm** as designated in the Schedule of Classes for this term. No other time for the final exam will be available, and no exceptions will be made for conflicts such as student travel plans or other exams the same day. Moreover, no other opportunities will be available to make up any missed exams except for the designated make-up exam. Students with exam scheduling conflicts (religious holidays, exam overlaps, or other legitimate reasons) must contact Drs. Dowling and Turchyn in writing by class time on **September 17th**. No make-up exams will be given unless they are notified in writing by this date. Reasonable exceptions will be granted in cases of illness which will require notification prior to the exam and must be followed up with an original signed note from a physician.

You must bring your student ID (OneCard) with you to the exam. Exams begin promptly at **4:00 pm**. If you arrive to the testing room after this time, you will be required to wait in the lobby until all on-time students have been issued an exam. Tardy students will not be granted additional time to complete the exam. Students will not be able to leave and re-enter the room once the exam begins for any reason (including bathroom breaks). ***Most importantly, tardy students will not be allowed to begin the exam once the first student has finished the exam.***

GRADING

A total of 1,000 points are available to be earned in this course: 660 from lecture exams and 340 from the laboratory. There is absolutely no opportunity for extra credit or alternate assignments under any circumstances. Under this scheme, each exam is worth 16.5% of your final grade. If more than one exam is missed, the additional exams not compensated for by the make-up exam will receive a score of

zero. Course grades are determined from total point accumulation (lecture + lab) at the end of the semester, with letter grades assigned based on the following scale (based on 1,000 possible points):

934.5 or more	A	799.5 – 839.49	B-	669.5 – 699.49	D+
899.5 – 934.49	A-	769.5 – 799.49	C+	639.5 – 669.49	D
869.5 – 899.49	B+	739.5 – 769.49	C	599.5 – 639.49	D-
839.5 – 869.49	B	699.5 – 739.49	C-	599.49 or less	F

This grading scale may be modified if appropriate depending on the class average and point distribution. Exam grades will be posted on Canvas as soon as possible after the exam has been administered.

EXAM GRADE DISPUTES / CHALLENGE OPTION

Students will have one (1) week after the return of an exam or a written assignment to challenge a grade for any question. Failure to challenge the grade within this period indicates a willingness to accept the grade as is. The challenge should consist of a written description of why the answer is correct based on other published material that you cite. It is not an opportunity to complain. Be advised that an exam challenge constitutes an entire re-grade of your exam.

CHEATING

Cheating is covered in detail in the Wayne State University Code of Conduct, found at https://doso.wayne.edu/conduct/academic-misconduct.

Students found to be cheating during an exam (using a "cheat sheet", looking at another's paper, or allowing another to look at yours), will receive a zero for that test with no opportunity to drop or replace that score. Falsification of information for the purpose of delaying or making up an exam is considered cheating. A second episode of cheating will result in a grade of F for the course and may also result in initiation of university disciplinary action.

No electronic devices (cell phones, blackberries, ipods, computers, cameras, calculators, etc.) are to be present at an exam. Those present will be confiscated until the exam is completed, and students using such devices to cheat on an exam will receive a zero on the exam.

In short, don't cheat. It rarely helps you with your final course grade, and the consequences are simply not worth the risk. Be aware that cheating is a very personal and disrespectful insult to instructors, your TA, and your classmates, and the instructors will show no leniency in how it is handled.

CLASSROOM ETIQUETTE

You are expected to act professionally in lecture and laboratories. Expectations include:

- Turn off cell phones, ipods, smartphones, and all other electronic devices. Talking on cell phones, text-messaging, or tweeting are all rude and inappropriate to be doing during class.
- No talking during lecture or when instructors are talking in lab. This is no different than common manners in any other educational setting.
- Arrive on time. Class starts promptly at 4:00 pm. Arriving late is distracting and wastes time. If you must arrive late or leave early, enter or exit quietly and sit near the entrance or exit.

- You are welcome to ask questions during lecture if the question is respectful and relevant to the subject matter. If the question is complex and requires discussion, it is best to approach an instructor during office hours.

SPECIAL CONSIDERATIONS FOR INDIVIDUALS WITH DISABILITIES

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. The SDS telephone number is 313-577-1851 or 313-202-4216 for videophone use. Once you have your accommodations in place, the instructors will meet with you privately during office hours to discuss your special needs. Student Disability Services' mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University. You can learn more about the disability office at www.studentdisability.wayne.edu.

To register with Student Disability Services, complete the online registration form at: https://wayne-accommodate.symplicity.com/public_accommodation/

DROP POLICY

- **Wednesday, September 12th, 2018** is the last day to add the class, or to drop the class with a tuition refund and with a "W" on your transcript.
- **Sunday, November 11th, 2018** is the last day that you can drop the class. Instructor approval is required

If you stop attending class and fail to withdraw, you will receive an F for the course. In addition, if you drop the course after **September 12th**, you will be assigned one of the following three marks: WP (withdrew but was passing at the time), WF (withdrew but was failing at the time), WN (withdrew and never attended class or had no graded work). WP and WF failing marks will be determined based on the percentage of available points earned at the time the course is dropped (WP $\geq$ 60%). No exceptions. Information on the grading policy can be found at: http://sdcl.wayne.edu/RegistrarWeb/Registrar/policies.htm.

UNEXPECTED UNIVERSITY CLOSURES

If the University is officially closed on an exam day, the exam will be held on the next regularly scheduled class day. Closure of the University is announced by the following mechanisms:

1. the University Newsline (313) 577-5345 *
2. WSU Homepage (www.wayne.edu) *
3. WSU Pipeline (www.pipeline.wayne.edu) *
4. WDET-FM (Public Radio 101.9)
5. by other local radio and television stations

* Note: The information on closures and class cancellations is likely to be found at these locations before it is broadcast by local radio and television stations.

OTHER

Any specific issue not covered by this syllabus will be resolved using University policies. Disputes that cannot be resolved following the guidelines present in this syllabus will be resolved by following the guidelines of the University "Student Due Process."

BIOLOGY 1500 – BASIC LIFE DIVERSITY – FALL 2018

Day	Date	Topic	Reading
TH	30-Aug	Introduction/Nature of science/Describing and interpreting patterns of diversity (DOWLING)	1, 23
T	4-Sep	Describing and interpreting patterns of diversity, origins of biodiversity, Prokaryotes	23, 26
TH	6-Sep	Prokaryotes, Protists and the importance of sex	28, 29
T	11-Sep	Fungi, symbiosis and fungi (TURCHYN)	32.1-32.9
TH	13-Sep	Why study plants? Angiosperms and reproductive development	31.3, 41
T	18-Sep	Pollination, plant development	31.4, 31.5, 41
TH	20-Sep	Plant cells and tissues, roots and stems	36.1-36.4
T	**25-Sep**	**Exam 1**	
TH	27-Sep	Roots and stems, plant transport	36.3, 36.4, 37
T	2-Oct	Leaves, gymnosperms	31.2, 36.5, 41.7
TH	4-Oct	Seedless plants, plant nutrition and soils	30, 32.1-32.7, 38.1-38.4
T	9-Oct	Plant nutrition and soils, plant defense	38.1-38.4, 39
TH	11-Oct	Plant sensory systems, ecology of individuals and populations	40, 55
T	16-Oct	Ecology of individuals and populations, community ecology	55, 56
TH	**18-Oct**	**Exam 2**	
T	23-Oct	Dynamics of ecosystems	57
TH	25-Oct	The biosphere	58
T	30-Oct	Multicellular animals	33, 34, 35
TH	1-Nov	Mendelian genetics, sampling	12
T	6-Nov	Relationship of genotype to phenotype	12
TH	8-Nov	Organismal structure and principles of regulation, digestive system	42, 47
T	**13-Nov**	**Exam 3**	
TH	15-Nov	Respiratory system, circulatory system	48, 49
T	20-Nov	Circulatory system, osmotic regulation and the urinary system	49, 50
TH	22-Nov	**THANKSGIVING HOLIDAY – NO CLASS**	
T	27-Nov	Evolution	20, 21, 22
TH	29-Nov	Evolution	20, 21, 22
T	4-Dec	Evolution, Conservation of biodiversity	20, 21, 22, 59
TH	**6-Dec**	**Exam 4**	

Make-up Exam: Tuesday, December 18th at 2:45-3:45 pm