

BIO 1500: Basic Life Diversity (MWF)
Course Syllabus, Fall 2020

Instructors:	Dr. William Branford	Dr. Tom Dowling
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Office hours:	(9/11 - 10/28) W 10:00-11:30 AM TH 2:00-3:30 PM By appointment	(9/2 to 9/9; after 10/28): W 10:00-11:30 AM TH 2:00-3:30 PM By appointment

WELCOME TO BIOLOGY 1500!

In this document, you will find all the information you need regarding the course structure, the content of the course, grading policies, exam dates, and other important information. By registering for the class, you agree to follow all the policies listed in the syllabus and those that are mandated by the University. Therefore, **we highly recommend you read the syllabus in great detail.** We look forward to a fun and exciting semester with all of you!

COURSE DESCRIPTION AND OBJECTIVES

BIO 1500 is one course 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.

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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 and the forces that generate and influence the patterns of this diversity.

As this course fulfills the General Education requirement, there are specific learning objectives focused on the nature of science and understanding how science works. Completion of this course is expected to help you be able to:

1. Explain natural phenomena using scientific concepts, theories, and/or principles
2. Describe the process of scientific inquiry
3. Analyze historical or contemporary societal subjects using scientific concepts and principles
4. Apply the scientific method to evaluate data

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, 12th edition, by Raven, Johnson, Mason, Losos, and Singer (ISBN: 978-1-26016-961-4)
- Exploring Biology in the Laboratory, custom for WSU, by Pendarvis and Crawley (ISBN: 978-1-64043-301-4)

ADD/DROP INFORMATION

<https://wayne.edu/registrar/registration/dropping-and-withdrawing>)

Students can enroll in the class until **Sept 15**. If a student signs up for the class and decides to drop it before or on **Sept 15**, the tuition for the class will be cancelled, the student will be reimbursed, and the class will not show on his/her transcript. If the student drops the class between **Sept 16** and **Nov 15**, the tuition will not be reimbursed and a final grade of "WP" (withdrawal with a passing grade, if average of all your exam scores earned to date is greater than or equal to 60%), "WF" (withdrawal with a failing grade, if average of all your exam scores earned to date is less than 60%), or "WN" (withdrawal never attended) will be shown on his/her transcript. **All withdrawals must be requested through Academics and they will not be granted after Nov 15** (<https://wayne.edu/registrar/withdrawals/>). If the student signs up for the class, stops attending lectures, and fails to withdraw, he/she will receive a failing grade "F" for

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the course. **Please note that “incomplete” grades will not be issued to students in poor standing who are seeking an alternative to a late drop.**

STUDENT CODE OF CONDUCT

All participants in the course are bound by the Student Code of Conduct that can be found at (<https://doso.wayne.edu/conduct/academic-misconduct>). Students who engage in dishonest conduct, acts of cheating, or plagiarism will receive a zero for that assignment or exam with no opportunity to drop or replace that score. Dishonest conduct includes helping another student engage in dishonest conduct and will result in a zero for both the helper’s and the helped student’s assignment/exam. 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. (The University is aware that students often use **WhatsApp** and/or other group messaging apps for the purposes of cheating on their classwork. Be aware that that using group messaging apps in this manner is indeed a violation of the academic integrity honor code and can come with consequences.)

In short, do not 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.

OFFICE HOURS AND COMMUNICATION

Contact information for both instructors and their availability is provided above.

Please do not attempt to phone the instructors with questions. Given the circumstances we are rarely at our offices to get messages. One way to communicate with us is by e-mailing the appropriate 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 your course Canvas site.

To encourage communication among students, we will establish a discussion board where students can pose questions about subject material and take advantage of the knowledge and interpretation of other students in the class. Questions pertaining to lecture material should be posted to that discussion board. We will be monitoring the discussion board to facilitate communication among students.

When e-mailing us, Dr. Tucker, or your TA, please use a professional style with your course number in the subject, a proper greeting (e.g., “Dr. Branford, Dr. Dowling, Dr. Tucker, or Ms./Mr./Mrs. Teaching assistant”), and correct spelling, capitalization, grammar, and punctuation. No texting abbreviations should be used. E-mails that do not follow these rules may take longer to get a reply or may be returned for correction.

Please do not e-mail either instructor with questions regarding your laboratory section or its activities and grading system. Those questions should be directed to your TA or to Dr. Madelyn Tucker (madelyntucker@wayne.edu) the Laboratory Coordinator for the course. E-mail questions about the lab sent to the lecturers will go unanswered. Given the circumstances, it is important that you learn your TA’s name early in the course and make sure that

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you are in regular contact with them. It is important that you do everything necessary to keep up with your lab work. Consult your laboratory Canvas site and syllabus for this information.

You do not need to report to the instructor that you will be missing any synchronous class sessions. 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.

Your SI will be **Loveleen Banga** (gp4890@wayne.edu). Her availability is provided below and on the course Canvas site. We encourage you to use this valuable resource!

Session times: MW 3:00 PM - 4:00 PM; F 11:00 AM - 12:00 PM

Drop-in hour: F 9:00 AM - 10:00 AM (or later at 9:30 AM - 10:30 AM)

The Academic Success Center offers **individual tutoring** and **group workshops** to the students, which are free of charge. You should schedule appointments or request group sessions early in the semester. Use <https://success.wayne.edu/pal/csg> individual tutoring appointments. There is also a Writing Center (<http://www.clas.wayne.edu/writing/>) that provides individual tutoring consultations free of charge. This service might aid you with the written assignments in lab.

INFORMATION ABOUT EXAMS

There will be **FOUR online examinations given during the semester** that will consist of multiple choice and true/false questions. The number of questions on an exam, as well as the number of questions of each type, may vary between instructors. Some questions will contain images. Each exam will be worth 175 points. There will also be **ONE optional cumulative final exam** worth 175 points that will cover all the material presented in the course. **Only the highest four scores will count toward your final grade; your lowest score will be dropped.** All exams are closed book and are related to the material covered in the lecture and any other assigned material.

Exam dates will be **Monday, September 28th; Wednesday, October 21st, Monday, November 16th, and Monday, December 14th.** Exams will not be given in advance. Your only opportunity to make up an exam will be taking the optional, cumulative final exam. The final exam will be **Monday, December 21st from 12:30 – 1:30 pm** as designated in the Schedule of Classes for this term.

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If you need to miss an exam, including the final exam, for any reason and have not missed any previous exams, **you must use your drop for the exam that you will be missing**. Make-up exams for a second missed exam will **only** be given under extremely extenuating, documented circumstances, such as a severe illness, family death, etc. Such circumstances will require notification to the instructor **prior to the exam** and must be followed with **original, official signed documentation confirming your extenuating circumstance**. Otherwise, missed exams will be scored as 0 points. Headaches, common bouts of illness, waking up late, vacations, work, etc. are not extenuating circumstances.

Religious holiday conflicts (from the online Academic Calendar)

[\(https://wayne.edu/registrar/registration/calendar20-21/\)](https://wayne.edu/registrar/registration/calendar20-21/)

*“Because of the extraordinary variety of religious affiliations of the University student body and staff, the Academic Calendar makes no provisions for religious holidays. However, it is University policy to respect the faith and religious obligations of the individual. Students with classes or examinations that conflict with their religious observances are expected to notify their instructors by” **Friday, September 18** “so that mutually agreeable alternatives may be worked out.”*

Final exam time conflict university policy

https://wayne.edu/registrar/scheduling/final_exam_schedule_fall_2020.pdf

*“Students are not required to take more than two exams in one day. A student with more than two scheduled final exams on one day may (not must) petition to the instructor of the course with the lowest number students enrolled, to arrange an alternate time for the final exam. **Such petitions must be made at least one week prior to the scheduled date of the final exam.**”*

“In situations where conflicts exist between the regular day schedule and the group exam schedule, the group exam takes precedence. If there is a conflict among the regular schedule, group exam and evening schedule, the group exam takes precedence. The instructor with the fewest students in the remaining two classes will offer alternate arrangements to students.”

As of 8/21/2020, our class has approximately 270 students.

“Any student unable to take a final exam at the scheduled time due to religious convictions shall petition the instructor in advance of the final exam to arrange an alternate time.”

All exams will be administered online through Canvas Quizzes using LockDown Browser and Respondus Monitor, which requires a webcam to ensure academic integrity. Respondus is compatible with Microsoft Windows, macOS, and most Wayne State-managed Chromebooks. However, it is not compatible with personally-owned Android or iOS devices or Chromebooks. To download Respondus in Canvas, click **Help** and then **Students: Links and Downloads**. Visit the Respondus Student Resources web page at <http://web.respondus.com/student-help/> for more information.

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If you need assistance obtaining course materials (including technology) you may be eligible to receive CARES Act funds through the University. More information can be found here: <https://wayne.edu/financial-aid/resources/coronavirus>.

Each exam, including the final, will take place as specified in the **SCHEDULE OF LECTURES AND EXAMS** (see below). Exams will be timed, and students will have only a single attempt at exam. Once you have finished answering the questions, click the Submit button at the bottom of the exam. If you do not submit the exam, you will receive no credit for your answers. No extra time will be given to those students who start working on their exam too late.

GRADING

A total of 1,000 points is available to be earned in this course: 700 from lecture exams and 300 from the laboratory. There may be extra credit questions on the exams, but otherwise, there is absolutely no opportunity for extra credit or alternate assignments. Under this scheme, each exam is worth 17.5% of your final grade and your lab grade is 30% of your grade. The final exam grade can only replace one midterm lecture exam grade, even if two or more midterm lecture exams are missed. If more than one exam is missed, the additional missed exams will receive scores of zero. All exam scores will be posted in **Canvas Grades**. It is the student's responsibility to keep track of his/her scores.

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):

929.5 or more	A	799.5 – 829.49	B-	669.5 – 699.49	D+
899.5 – 929.49	A-	769.5 – 799.49	C+	629.5 – 669.49	D
869.5 – 899.49	B+	729.5 – 769.49	C	599.5 – 629.49	D-
829.5 – 869.49	B	699.5 – 729.49	C-	599.49 or less	F

At the end of the semester, 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 everyone has completed the exam.

GRADE DISPUTES

Students will have one week after the posting of the exam answer key to challenge any question. Failure to challenge the question within this period indicates a willingness to accept the question's answer as is. The challenge should consist of a written description of why your answer is correct based on published material that you cite. It is not an opportunity to complain.

STUDENTS 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.

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Once you have your accommodations in place, please send me an email discussing 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 <https://studentdisability.wayne.edu/>, To register with Student Disability Services, complete the online registration form at: https://wayne-accommodate.symplicity.com/public_accommodation/.

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 Newline (313) 577-5345 *
2. WSU Homepage (<https://wayne.edu/>) *
3. Academica (<https://academica.aws.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.

COVID-19 COMPLIANCE

All students are expected to familiarize themselves with mandatory campus health and safety guidelines – including practicing social distancing and wearing a face covering – by completing the [Warrior Safe Training](#) modules in Canvas. University policy requires students to complete a [campus daily health screener](#) beginning 48 hours before first coming to campus.

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.”

Also, we are happy to write letters of recommendation for students who earn a grade of A, A-, or B+ and communicate with us often enough that we know them relatively well.

SCHEDULE OF LECTURES, QUIZZES, AND EXAMS

All lecture PowerPoint slides, available recordings of the lectures, old exams with answer keys, animations, and the lecture syllabus can be found on Canvas Homepage. If there are any issues with Canvas, please contact Computing & Information Technology (C& IT) at (313) 577-4778 or helpdesk@wayne.edu.

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A tentative lecture schedule is provided as the last page of this document. 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.

CLASS MEETING TIME/LOCATION

There will be no weekly scheduled course meetings that require attendance. However, the assumption is that students are proceeding with the course in the same manner as weekly face-to-face meetings. It is the student's responsibility to complete all exams on time.

Dowling lectures (see topics for dates):

My lectures will be synchronous, being presented on Zoom during the scheduled class time. All classes will be recorded and available on Canvas. I have scheduled each lecture as a Zoom meeting. You need to access these through your Canvas page for the class. The class meeting schedule is seen in the right hand panel on your Canvas page or you can get it to by clicking on the "Zoom" category in the left hand navigation bar. This will show you all scheduled meetings (lectures and office hours). There is a "join" button you click to enter the Zoom meeting.

This is new to all of us so it will be a learning experience and will evolve during the semester. I will attempt to mimic lecture as closely as I can, by asking questions that generate feedback from you. This will likely take advantage of poll questions to see if people are following the material as presented. I will also try to use the chat function as well; however, with so many students it may be difficult to utilize this function. This is the reason why it is important for students to attend lecture. If you do not, I will not get your feedback and not be able to assess if you understand the concepts we are discussing.

Branford lectures (see topics for dates)

My lectures will be asynchronous, except for the first several lectures on prokaryotes.

The lectures on prokaryotes will be synchronous lectures that will occur during the scheduled class time. These lectures will take place via Zoom and will be recorded. Zoom meeting connection information will be announced prior to my first lecture.

My remaining lectures will be asynchronous; they are recordings from my Fall 2019 class that will be posted to Canvas. I have listened to each of these recorded lectures and taken note of errors, inconsistencies, and potentially confusing or unclear segments. To address these, I have written documents that correct, clarify, or re-explain any problem portions of the recordings; I will post these documents to Canvas.

You may watch my lectures whenever you wish. All my lecture slides will be posted to Canvas.

Once we finish prokaryotes, I will make myself available for group sessions with the entire class every Wednesday during the scheduled class period (1:30 – 2:20) to re-explain material or answer questions synchronously. If more synchronous time is needed, I will hold more group sessions during this time period on Monday and/or Friday.

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BIOLOGY 1500 – BASIC LIFE DIVERSITY – FALL 2020

Day	Date	Topic	Reading
W	2-Sep	Introduction/Nature of science (DOWLING)	Ch. 1
F	4-Sep	Describing and interpreting patterns of diversity	Ch. 23
M	7-Sep	Labor Day - no class	
W	9-Sep	Describing and interpreting patterns of diversity, origins of life	Ch. 23/Ch. 25
F	11-Sep	Introduction / Prokaryotes (BRANFORD)	Ch. 27
M	14-Sep	Prokaryotes	Ch.27
W	16-Sep	Prokaryotes	Ch.27
F	18-Sep	Prokaryotes / Protists	Ch. 27 / Ch. 28.1-28.2
M	21-Sep	Protists	Ch. 28.1-28.2
W	23-Sep	Fungi	Ch. 31.1-31.4
F	25-Sep	Fungi / Seedless Plants	Ch. 31.1-31.4 / Ch. 29
M	28-Sep	Exam 1	
W	30-Sep	Seedless Plants	Ch. 29
F	2-Oct	Seedless Plants / Seed Plants	Ch. 29 / Ch. 30
M	5-Oct	Seed Plants	Ch. 30
W	7-Oct	Seed Plants	Ch. 30
F	9-Oct	Seed Plants	Ch. 30
M	12-Oct	Seed Plants / Plant Reproduction - Flower Genetics	Ch. 30 / Ch. 40.1-40.2
W	14-Oct	Plant Reproduction - Flower Genetics / Plant Form	Ch. 40.1-40.2/ Ch. 35.1-35.2
F	16-Oct	Plant Form	Ch. 35.1-35.2
M	19-Oct	Transport in Plants	Ch. 36
W	21-Oct	Exam 2	
F	23-Oct	Transport in Plants	Ch. 36
M	26-Oct	Transport in Plants	Ch. 36
W	28-Oct	Transport in Plants	Ch. 36
F	30-Oct	Animal diversity (DOWLING)	Ch. 32/Ch. 33/Ch. 34
M	2-Nov	Animal diversity	Ch. 32/Ch. 33/Ch. 34
W	4-Nov	Organismal structure and principles of regulation	Ch. 41
F	6-Nov	Digestive system	Ch. 46
M	9-Nov	Respiratory system	Ch. 47
W	11-Nov	Circulatory system	Ch. 48
F	13-Nov	Single locus and two locus Mendelian genetics	Ch. 12
M	16-Nov	Exam 3	
W	18-Nov	Relationship of genotype to phenotype, mechanisms of evolution	Ch. 12/Ch. 20/Ch. 21
F	20-Nov	Mechanisms of evolution	Ch. 20/Ch. 21
M	23-Nov	Mechanisms of evolution	Ch. 20/Ch. 21
W	25-Nov	THANKSGIVING HOLIDAY – NO CLASS	
F	27-Nov	THANKSGIVING HOLIDAY – NO CLASS	
M	30-Nov	Mechanisms of evolution	Ch. 20/Ch. 21
W	2-Dec	Where does biodiversity come from?	Ch. 22
F	4-Dec	Ecology of individuals and populations, community ecology	Ch. 54/Ch. 55
M	7-Dec	Community ecology, dynamics of ecosystems	Ch. 55/Ch. 56
W	9-Dec	Dynamics of ecosystems, the biosphere	Ch. 56/Ch. 57
F	11-Dec	Conservation of biodiversity	Ch. 58
M	14-Dec	Exam 4	

Make-up Exam: Monday, December 21st at 12:30-1:30 pm

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