

BIO 1030 Biology Today
Course Syllabus
Fall 2019

Instructor: Robert A Thomas, Ph.D.

2121 Biological Sciences Building

Office phone: (313) 577-3548

Email: aa1467@wayne.edu

CLASS MEETING LOCATION

137 State Hall

CLASS MEETING TIME

Monday, Wednesday and Friday, 9:30 – 10:20 A.M.

COURSE DESCRIPTION AND OBJECTIVES

Challenges to modern society from population growth, new diseases, environmental degradation, urban pollution; medical advances and ethical dilemmas in decoding human genome; impact of biological findings on political and personal decisions; issues considered in context of principles and strategies of modern biological research.

Starting with basic concepts of biology, we will advance to understanding more complex topics relevant to modern society. The objective is to provide non-science major students with a broad-based and fundamental understanding of the basic biology relating to biodiversity, relationships that exist between all life forms from the prokaryotic to eukaryotic systems.

Students will be able describe:

1. How **science is based on evidence** and makes predictions and interpret biological data **qualitatively, quantitatively, and with graphs.**
2. How **structures** of molecules, cells and tissues relate to their **functions**
3. How **information** flows in cells, from DNA to RNA to proteins, and in the mitotic and meiotic cell cycles.
4. How **energy and matter are transformed** in cellular respiration and photosynthesis.
5. How the components of cells interact as **systems** to generate emergent properties
6. How biological information can be **modified by mutations** and **biotechnology.**
7. How inheritance and mutations are critical for **evolution.**
8. How **microorganisms** impact on **technology** and **health.**
9. How science informs the decisions of a **society**, and how science, such as biological engineering, creates opportunities that require informed citizens and policies.

Course assignments will illustrate the impact that human populations can have on altering biosystems that we share with other organisms. Following this course it is expected that students will have an increase in understanding of what Biology is, and a greater appreciation of how their personal, political, ethical choices can have an enormous global impact.

COURSE PREREQUISITES

There are no prerequisites for this course. This course is designed for non-science majors.

OFFICE HOURS

Days and times: **Mondays and Wednesday 12:30 – 2:00 (may adjust days and time) in room 2121 Biological Sciences Bldg.** A mutually convenient appointment at other times may also be arranged by email at: **aa1467@wayne.edu**

In addition, you may e-mail **Dr. Thomas** questions or comments. Depending on the load, responses are usually provided within a day or two.

EXAMS

There will be (4) 45 minute midterm lecture exams, and a Final Exam comprehensive, each worth **120 points** consisting of True/False, and Multiple choice. It is strongly recommended that you **DO NOT** miss a lecture exam. I will show you how to calculate your grade to determine your standing in the class at all times. **If at any time you drop below 70% (C-) average, please make a point to come and see me to discuss your progress in the class.**

There will be a final exam which can make up for any single missed test, or you can replace your lowest midterm exam score with the final exam score. This exam will be comprehensive and covers all of the material presented over the entire course.

If you miss an exam, there are no makeup exams **under any** circumstances. **So don't ask !!!!!!!**

COURSE CREDITS

This is a 3 credit course for both non-honors (19556) and honors (19557) students.

TEXT BOOK AND LECTURE SLIDES:

Lecture: Essentials of Biology by Mader and Windelspecht 5th Edition 2018.

NOTE Every effort will be made to provide the lecture slides on Canvas sometime before the class meets. I recommend that you look over slides, and print handouts to bring to class.

EXAM DATES

EXAM I - Monday, September 30, 2019

EXAM II - Monday, October 28, 2019

EXAM III - Monday, November 25, 2019

EXAM IV - Monday, December 9, 2019

The **Final Exam will be held on Monday December 16th at 8:00 – 10:00 in 137 State Hall.** NOTE THAT THE ROOM IN WHICH THE FINAL EXAM WILL BE HELD IN IS THE SAME AS THE REGULAR CLASS ROOM. The final exam is scheduled as designated in the Schedule of Classes for this term (https://wayne.edu/registrar/pdfs/final_exam_schedule_fall_2019.pdf). No other time for the final exam will be available, and **no exceptions** will be made for conflicts such as student travel plans.

EXAM FORMATS

The exams may include questions that are True/False and Multiple choice. All exams will be closed book and held in class. All you will need is a few sharp pencils. No electronic devices of any kind will be allowed unless indicated otherwise in advance, and cell phones and pagers must be turned off. Anyone who leaves the exam room will not be allowed back in. Late-arriving students should know that admittance into the exam room will not be allowed after the first student has left the room. Scantron

forms will be supplied if required. **Do not bring your own scantron forms to the exam as you will not be allowed to use them.**

There will be four **45 minute** lecture exams. Each exam will be worth 120 points. If you miss an exam, there will be a **comprehensive make up exam** at the end of the term. You can only substitute this exam for one missed or your lowest exam. All other missed exams will be counted as a zero.

GRADING

Your final grade for this class is based on total points earned. The course will have a total of 480 points for the semester.

	Points
Exam 1	/ 120
Exam 2	/ 120
Exam 3	/ 120
Exam 4	/ 120
Optional *Final Exam 5	/ 120
Course Total	/ 480

100 - 93 % = A
90 - 92 % = A-
89 - 87 % = B+
86 - 84 % = B
83 - 80 % = B-
79 - 77 % = C+
76 - 74 % = C
73 - 70 % = C-
69 - 67 % = D+
66 - 64 % = D
63 - 60 % = D-
59 - 0 % = F

Class participation and attendance are strongly encouraged but will not be graded.

There is no extra credit under any circumstances. Exam grades will be posted on blackboard your Student ID number as soon as possible after the exam has been administered.

Individual lecture exams may or may not be curved. Overall course scores will not be curved. Course grades will be determined from total point accumulation at the end of the semester.

Students with scheduling conflicts for any exam must notify Dr. Thomas in writing by class time at least **two weeks before the scheduled exam**. No make-up exams will be given unless he is notified in writing by this date. Reasonable exceptions will be granted in cases of illness that will require notification prior to the exam and must be followed up with an original signed note from a physician.

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.

CHEATING

A strict zero-tolerance policy for cheating will be enforced. Anyone caught cheating on an exam will receive a score of 0 (zero) for that portion of the grade.

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. 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.

Professional behavior is expected in lecture, which includes respecting your classmates by arriving on time, **turning off cell phones and not talking**, not eating or drinking during class. All students must show respect in language and attitude towards the instructors and their fellow students. You are encouraged to discuss differences of opinion with each other, respectfully, but not during lecture, as this would be distracting to your fellow students and to the instructor as well.

Another word on cell phones- if a cell phone rings during an exam, the owner of the cell phone will be asked to hand in his/her exam and leave the room. **TURN OFF YOUR PHONES (OR, BETTER YET, DO NOT BRING THEM AT ALL) BEFORE EXAMS OR RISK EARNING A ZERO ON YOUR EXAM!!!! OTHER ELECTRONIC DEVICES (IPODS, COMPUTERS, CAMERAS, CALCULATORS, ETC.) MAY NOT BE PRESENT DURING EXAMS, AND IF SEEN THEY WILL BE CONFISCATED ALONG WITH THE EXAM.**

POSTING OF EXAM GRADES

Scored exam grades will be posted on Canvas by Student ID Number as soon as possible after the exam has been administered. The distribution of scores will also be provided in class.

SPECIAL CONSIDERATIONS FOR INDIVIDUALS WITH DISABILITIES

If you have a physical or mental impairment that may interfere with your ability to complete the requirements for this course successfully, you are invited to contact Educational Accessibility Services (1600 David Adamany Library; 577-1851) to discuss appropriate accommodations on a confidential basis.

RELIGIOUS HOLIDAY CONFLICTS

If you have a conflict with any of the scheduled class or exam times due to religious reasons, you must notify Dr. Thomas in writing by class time on by class time **two weeks before the scheduled exam**. No make-up exams will be given unless s/he is notified in writing by this date.

ADD/DROP POLICY

Add forms will not be signed after Wednesday September 11, the second week of class.

Drop forms must be submitted to the Registrar before the end of Wednesday September 11 to get tuition cancellation. Wayne State has changed the grading policy. There are no more "X" grades. If you sign up for a class, stop attending, and fail to withdraw, you will receive an F for the course. In addition, if you drop the course after 5 weeks, 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 no graded work). Also, any "I" given to a student will automatically revert to "F" if the work is not completed within one calendar year. There are no exceptions. Further information on the grading policy can be found at <https://reg.wayne.edu/students/policies>.

Class #	BIO 1030	SYLLABUS	FALL 2019	Chprt #
(Note that the schedule is tentative)				
1	Wednesday, August 28, 2019	Housekeeping - Course Overview		
2	Friday, August 30, 2019	Biology: The Science of Life		1
	Monday, September 02, 2019	Labor Day - No Classes		
3	Wednesday, September 04, 2019	The Chemical Basis of Life		2
4	Friday, September 06, 2019	The Organic Molecules of Life		3
5	Monday, September 09, 2019			
6	Wednesday, September 11, 2019	Inside the Cell		4
7	Friday, September 13, 2019			
8	Monday, September 16, 2019	The Dynamic Cell		5
9	Wednesday, September 18, 2019	Energy for Life		6
10	Friday, September 20, 2019			
11	Monday, September 23, 2019	Energy for Cells		7
12	Wednesday, September 25, 2019			
13	Friday, September 27, 2019	Review		
14	Monday, September 30, 2019	EXAM I		1 - 7
15	Wednesday, October 02, 2019	Cellular Reproduction		8
16	Friday, October 04, 2019			
17	Monday, October 07, 2019	Meiosis and the Genetic Basis of Sexual Reproduction		9
18	Wednesday, October 09, 2019			
19	Friday, October 11, 2019	Patterns of Inheritance		10
20	Monday, October 14, 2019			
21	Wednesday, October 16, 2019	DNA Biology		11
22	Friday, October 18, 2019			
23	Monday, October 21, 2019	Biotechnology and Genomics		12
24	Wednesday, October 23, 2019			
25	Friday, October 25, 2019	Review		
26	Monday, October 28, 2019	EXAM II		8 - 12
27	Wednesday, October 30, 2019	Mutations and Genetic Testing		13
28	Friday, November 01, 2019			
29	Monday, November 04, 2019	Darwin and Evolution		14
30	Wednesday, November 06, 2019	Evolution on a Large Scale		16
31	Friday, November 08, 2019	The Microorganisms: Viruses, Bacteria and Protists x2		17
32	Monday, November 11, 2019			
33	Wednesday, November 13, 2019	Being Organized and Steady		22
34	Friday, November 15, 2019			
35	Monday, November 18, 2019	Defense Against Disease		26
36	Wednesday, November 20, 2019	TBA - To Be Announced		
37	Friday, November 22, 2019	Review		
38	Monday, November 25, 2019	EXAM III		13-14, 16-17, 22, 26
	Wednesday, November 27, 2019	Thanksgiving - No Classes		
	Friday, November 29, 2019			
39	Monday, December 02, 2019	Human Impact on the Biosphere x2		32
40	Wednesday, December 04, 2019			
41	Friday, December 06, 2019	Review		
42	Monday, December 09, 2019	EXAM IV		32
43	Monday, December 16, 2019	FINAL EXAM (8:00-10:00)		All

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

I am happy to write letters of recommendations for students who earn a grade of A.

Please turn all cell phones off during class and during exams.

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".

IMPORTANT DATES DURING THE FALL 2019 SEMESTER

This info can be found online at <https://wayne.edu/registrar/registration/calendar19-20>

Final 2019-2020 Academic Year	Fall 2019
Schedule of Classes Online	Mon Feb 25
Priority Registration (First week schedule)	Mon Mar 25 - Sun Aug 18
Open Registration (Add'l \$35 Fee for Initial Registration)	Mon Aug 19 - Tue Aug 27
University Year Appointments Begin/End	Mon Aug 19
Classes Begin	Wed Aug 28
Holiday - University Closed	Mon Sep 2
Late Registration (Add'l \$70 for Initial Reg. only), and 1st Week Late Adds	Wed Aug 28 - Wed Sep 4
Late Registration (Add'l \$70 for Initial Reg. only), and 2nd Week late Adds	Thu Sep 5 - Wed Sep 11
Last Day for Tuition Cancellation - Full Term Courses/Census Date	Wed Sep 11
Early Academic Assessment	Wed Sep 11 - Tues Oct 15
Instructor Approval Required to Withdraw from Classes. In Academics: select "Course Withdrawal" from the Registration Menu under Student Resources; ***SMART Check*** is required.	Thu Sep 12 - Sun Nov 10
Degree Applications Due	Fri Sep 27
Last Day to Request Course Withdrawal	Sun Nov 10
Holiday - No Classes	Wed Nov 27
Holiday - University Closed	Thu Nov 28 - Sat Nov 30
Commencement	TBD
Classes End	Mon Dec 9
Study Day - Final Exams May Not Be Scheduled	Tue Dec 10
Final Exams	Wed Dec 11 - Tue Dec 17
Holiday - University Closed	Wed Dec 25 - Wed Jan 1