

BIO 1030 Biology Today
Course Syllabus
Winter 2018

Instructor: Robert A Thomas, Ph.D.

2121 Biological Sciences Building

Office phone: (313) 577-3548

Email: aa1467@wayne.edu

CLASS MEETING LOCATION

134 State Hall

CLASS MEETING TIME

Monday, Wednesday and Friday, 1:30 – 2:20 P.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 2:30 – 3:45 (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) 50 minute lecture exams, each worth **125 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.**

If you miss an exam for any reason, **There will be a comprehensive make-up final exam for any single missed test or you can substitute this exam score for your lowest 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 (21268) and honors (20342) students.

TEXT BOOK AND LECTURE SLIDES:

Lecture Text: **Essentials of Biology** by Mader and Windelspecht 4th Edition 2015.
IF THE 4TH EDITION IS NOT AVAILABLE YOU CAN USE THE 5TH EDITION.

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

EXAM DATES

EXAM I - Monday, February 5, 2018

EXAM II - Monday, March 5, 2018

EXAM III - Monday, April 2, 2018

EXAM IV - Monday, April 23, 2018

The **Final Exam will be held on Monday April 30 at 12:30 – 2:30 in 134 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://reg.wayne.edu/finals/final_exam_schedule_winter_2018_092017_v_2.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 **50 minute** lecture exams. Each exam will be worth 125 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 500 points for the semester.

	Points
Exam 1	/ 125
Exam 2	/ 125
Exam 3	/ 125
Exam 4	/ 125
Optional *Final Exam 5	/ 125
Course Total	/ 500

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 Blackboard 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 the second week of class.

Drop forms must be submitted to the Registrar before the end of Sun, Mar 25th.

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 <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

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".

BIO 1030 W2018 LECTURE SCHEDULE

Class	BIO 1030 MWF 1:30 - 2:20 134 STATE HALL	Chapter	
1	Monday, January 08, 2018	Biology: The Science of Life	1
2	Wednesday, January 10, 2018	The Chemical Basis of Life	2
3	Friday, January 12, 2018	The Organic Molecules of Life	3
4	Monday, January 15, 2018	NO CLASSES MARTIN LUTHER KING BIRTHDAY	
5	Wednesday, January 17, 2018	Inside the Cell	4
6	Friday, January 19, 2018	The Dynamic Cell	5
7	Monday, January 22, 2018	Energy for Life	6
8	Wednesday, January 24, 2018	Energy for Cells	7
9	Friday, January 26, 2018	Cellular Reproduction	8
10	Monday, January 29, 2018	Sexual Reproduction	9
11	Wednesday, January 31, 2018	Patterns of Inheritance	10
12	Friday, February 02, 2018	TBA	
13	Monday, February 05, 2018	EXAM I	
14	Wednesday, February 07, 2018	DNA Biology	11
15	Friday, February 09, 2018		
16	Monday, February 12, 2018	Biotechnology and Genomics	12
17	Wednesday, February 14, 2018	Genetic Counseling	13
18	Friday, February 16, 2018	Darwin and Evolution	14
19	Monday, February 19, 2018	Evolution on a Small Scale	15
20	Wednesday, February 21, 2018	Evolution on a Large Scale	16
21	Friday, February 23, 2018	The Microorganisms: Viruses, Bacteria, and Protists	17
22	Monday, February 26, 2018		
23	Wednesday, February 28, 2018	Plant Anatomy and Growth	20
24	Friday, March 02, 2018	TBA	
25	Monday, March 05, 2018	EXAM II	
26	Wednesday, March 07, 2018	Being Organized and Steady	22
27	Friday, March 09, 2018	The Transport Systems	23
28	Monday, March 12, 2018	NO CLASSES SPRING BREAK	
29	Wednesday, March 14, 2018		
30	Friday, March 16, 2018		
31	Monday, March 19, 2018	The Maintenance Systems	24
32	Wednesday, March 21, 2018	Human Nutrition	25
33	Friday, March 23, 2018	Defense Against Disease	26
34	Monday, March 26, 2018	The Control Systems	27
35	Wednesday, March 28, 2018	Sensory Input and Motor Output	28
36	Friday, March 30, 2018	TBA	
37	Monday, April 02, 2018	EXAM III	
38	Wednesday, April 04, 2018	Reproduction and Embryonic Development	29
39	Friday, April 06, 2018	Ecology of Populations	30
40	Monday, April 09, 2018	Communities and Ecosystems	31
41	Wednesday, April 11, 2018	Human Impact on the Biosphere	32
42	Friday, April 13, 2018	TBA	
43	Monday, April 16, 2018	TBA	
44	Wednesday, April 18, 2018	TBA	
45	Friday, April 20, 2018	REVIEW	
46	Monday, April 23, 2018	EXAM IV (Last day of class)	
47	Tuesday, April 24, 2018	NO CLASSES STUDY DAY	
FINAL 12:30-2:30	Monday, April 30, 2018	FINAL EXAM (12:30 - 2:30)	

Schedule is approximate. If needed changes will be posted on Blackboard

IMPORTANT DATES DURING THE WINTER 2017 SEMESTER

2018 Academic Year	Winter 2018
Open Registration (Add'l \$35 Fee for Initial Registration)	Mon Jan 1- Sun Jan 7
University Year Appointments Begin/End	Tue May 15
Classes Begin	Mon Jan 8
Holiday - University Closed	Mon Jan 15
Late Registration (Add'l \$70 for Initial Reg. only), and 1st Week Late Adds	Mon Jan 8 - Sun Jan 14
Late Registration (Add'l \$70 for Initial Reg. only), and 2nd Week late Adds	Mon Jan 15 - Mon Jan 22
Last Day for Tuition Cancellation - Full Term Courses/Census Date	Mon Jan 22
Early Academic Assessment	Mon Jan 22 - Mon Feb 26
Classes Dropped will not Appear on your Academic Record. You are Contractually Liable for Tuition of Dropped Classes During this Period.	Tue Jan 23 - Sun Feb 4
Instructor Approval Required to Withdraw from Classes. In Academics: select "Course Withdrawal" from the Registration Menu under Student Resources ***SMART Check*** is required.	Mon Feb 5 - Sun Mar 25
Degree Applications Due	Fri Feb 9
Last Day to Request Course Withdrawal	Sun Mar 25
Holiday - No Classes	Mon Mar 12 - Sat Mar 17 (Spring Break)
Holiday - University Closed	
Classes End	Mon Apr 23
Commencement	TBD
Study Day - Final Exams May Not Be Scheduled	Tue Apr 24
Final Exams	Wed Apr 25 - Tue May 1