

## **BIO 1050: An Introduction to Life**

### **Lecture Syllabus, Winter 2018**

3 credits **without** lab; 4 credits **with** lab

Room 0100 General Lectures

1:30 pm - 2:20 pm; Mondays, Wednesdays, and Fridays

### **Welcome to Biology 1050!**

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 of the policies listed in the syllabus and those that are mandated by the University. Therefore, **I highly recommend you read the syllabus in great detail.** I look forward to a fun and exciting semester with all of you!

Dr. Turchyn

### **COURSE DESCRIPTION**

This course is designed as introduction to biology for both science and non-science majors. The course also serves as a prerequisite to BIO 1500/1510. Students must earn a "C-" or higher in order to take BIO 1500/1510. Credit will not be received for BIO 1050 if a student has previously completed BIO 1500 or BIO 1510. If elected for 4 credits, the BIO 1050 meets the General Education Laboratory Requirement. **Students are not required to take the lab.** Students wishing to major in biology will take several labs in later courses that will fulfill laboratory requirements and therefore are not recommended to take the lab. This course will cover life from the cellular level to the organismal level, including reproduction, evolution, diversity, and body systems. The lectures will cover material presented directly from the textbook as well as from outside resources.

### **STUDENT LEARNING OBJECTIVES**

The overall goal of the course is for you to demonstrate an understanding of basic biology from molecules to ecology and evolution, as stated in learning objective 4. This goal depends on your acquiring the skills necessary for you to learn biology effectively, as stated in learning objectives 1-3.

Learning Objective 1 is that you *set a goal, and a strategy* to meet your goal at the beginning of the semester, and reevaluate your goal & strategy after each exam.

Learning Objective 2 is that you *use the tools & resources* for this course, including learning communities, lectures, study guides, textbook, STEM Commons, and the academic success center, to help you achieve your goals.

Learning Objective 3 is that you *assess your own learning* to evaluate how to improve by reading the textbook, and answering questions at the end of each chapter and in the study guides.

Learning Objective 4 is that by applying the first three objectives in the context of biology throughout the semester, you will be able to demonstrate that you are an educated consumer, patient and voter in issues related to biology, and you are able to succeed in biology courses that you enroll in later.

### TEXTBOOK INFORMATION

**Textbook** – Campbell Biology Concepts and Connections, 9<sup>th</sup> edition, by Taylor, Simon, Dickey, Hogan, and Reece is available in two forms: hardcover (ISBN: 9780134296012) and loose leaf (ISBN: 9780134442778).

**Laboratory Manual** – BIO 1050 by Serreyn (ISBN: 9780738086897).

### ADD/DROP INFORMATION

Students can enroll in the class until **January 22<sup>nd</sup>**. If a student signs up for the class and decides to drop it before **January 22<sup>nd</sup>**, 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 this course between **January 23<sup>rd</sup>** and **February 4<sup>th</sup>**, it will not be shown on the student's transcript, but the tuition will not be reimbursed. If the student drops the class between **February 5<sup>th</sup>** and **March 25<sup>th</sup>**, the tuition will not be reimbursed and a final grade of "WP" (withdrawal with a passing grade, if average of all lecture exam scores earned to date is greater than or equal to 60%), "WF" (withdrawal with a failing grade, if average of all lecture 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 March 25<sup>th</sup>**. If the student signs up for the class, stops attending lectures, and fails to withdraw, he/she will receive a failing grade "F" for 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.**

## CODE OF CONDUCT

Professional behavior is expected in the lecture, which includes respecting your classmates by arriving on time, turning off your cell phones, and not talking, texting, surfing internet (facebook, twitter, etc.) or playing any games. If a student is caught performing any of the above during lecture, he/she will be required to leave the room. If a student is caught performing any of the above during an exam, he/she will receive a grade of "F" for the course (see below).

## CHEATING POLICY

There is a zero tolerance cheating policy in this class. A student found to be cheating during an exam (using a "cheat sheet" or notes written on a desk, looking at another student's exam, or allowing another student to look at his/her exam) will automatically receive a grade of "F" for the course and may be expelled from the University. For discussions of cheating and plagiarism see the "Student Code of Conduct" that can be found at <http://www.doso.wayne.edu/judicial/index.htm>

## OFFICE HOURSE AND COMMUNICATION

**Any questions/comments regarding the lecture** portion of the course should be directed to:

Dr. Nataliya Turchyn

**Office Location:** Room 3119, Biological Sciences Building

**E-mail:** [ai7380wayne.edu](mailto:ai7380wayne.edu)

**Office Phone:** 313-577-2910

**Office Hours:** 2:30 pm - 3:30 pm on Mondays and Wednesdays, 12:15 pm - 1:15 pm on Fridays or by appointment

If you have a question about the lecture/textbook material, please post your question on the **Discussion Board** associated with the course Blackboard website: [www.blackboard.wayne.edu](http://www.blackboard.wayne.edu)

I will not reply to e-mails when the answer can be found in the syllabus or on the Blackboard. In addition, I will not reply to e-mail questions that have already been answered on the **Discussion Board**.

If you would like to make an appointment to meet with me, please contact me through e-mail or in person after lecture.

If you have a question about your lecture grade, please send me an e-mail containing the scores you have in your records and I will check them with my records.

**Any questions regarding the lab** portion of the course should be directed to a student's lab teaching assistant (TA) or Ms. Michelle Serreyn, Room 2012 Science Hall, e-mail: [ac3042@wayne.edu](mailto:ac3042@wayne.edu)

**Any questions for/about Peer Mentors (PM)** should be directed to a student's PM and/or to Alisa Gega. She is the PM Coordinator and her email is: [alisa.gega@wayne.edu](mailto:alisa.gega@wayne.edu)

When e-mailing me, Ms. Serreyn, Alisa, teaching assistant, or peer mentor, please use professional style with your course number in the subject, a proper greeting (e.g., "Dear. Dr. Turchyn, Ms. Serreyn, or Alisa"), and correct spelling, capitalization, and punctuation. Always include your name at the end of your email.

### LEARNING COMMUNITY (LC) SUPPORT

**Peer Mentors:** You will have a learning community of peers and a peer mentor that meets once a week. This community is a resource for your success in this course and at WSU. Your peer mentors will let you know when they will be available in the [STEM Commons](#) (see below).

**Your learning community:** The members of your learning community are another resource. Some of them have been at WSU for a while and know how to succeed. Others are just starting out. Support each other in your mutual success by asking for help when you need it and sharing your strategies for success. **You will earn up to 20 points for participating in your learning community weekly meetings (2 points per meeting).**

**STEM Commons:** Your peer mentors will be available in the [STEM Commons](#) in the Science and Engineering Library from 9:00 am to 9:00 pm Mondays through Thursdays, and 9:00 am to 5:00 pm on Fridays. You may use the STEM Commons for small group study or to ask the peer mentors questions about the lecture material, study skills, how to succeed at WSU, or to study for your other classes, especially science classes. Feel free to talk to any peer mentor there, not just your own. **Remember:** your peer mentor will help you with difficult concepts to make the path to a good grade smoother, but ultimately it is your job to participate and work hard for your grade.

### ACADEMIC SUCCESS CENTER

In addition to peer mentors and LC, you can get free individual **tutoring** and group **workshops** in the Academic Success Center. See <http://success.wayne.edu/> for more information.

## INFORMATION ABOUT EXAMS

There will be four exams given during the semester and one final, cumulative exam (five exams total). Every student must take the final exam. Each semester exam is worth 100 points and consists of 40 questions. The final exam, however, is worth 200 points and consists of 80 questions. If the percentage of your final exam score is higher than the percentage of your lowest semester exam score, your lowest semester exam score will be replaced.

For example, if your score on exam #2 was 70 out of 100 points, then your exam #2 would be 70% ( $70/100 \times 100\%$ ). If you score on the final exam was 160/200, then your final percentage would be 80% ( $160/200 \times 100\%$ ). Your exam #2 score would be recalculated using the 80% you received on the final exam and your new exam #2 score would be 80 points ( $80\%/100\% \times 100$  points).

Each exam will consist of multiple choice and true/false questions. **All exams are closed book and are related to the material covered in the lecture, study guides, and assigned in reading of the textbook.**

**YOU MUST BRING YOUR STUDENT ID (ONECARD) TO EVERY EXAM!** Scantrons are provided at the exams. Each semester exam begins promptly at 1:30 pm and ends at 2:20 pm. **The FINAL EXAM is scheduled for Monday, April 30<sup>th</sup> at 12:30 PM - 2:30 PM.** All exams are held in 0100 General Lectures. **There are no make-up exams. If a student misses a semester exam for ANY reason, the percentage the student receives on the final exam will be used as the percentage for the missed exam.**

For example, if you score on the final exam 180 out of 200 points, then your percentage on the final exam would be 90% ( $180/200 \times 100\%$ ). So, if you missed exam #2 for any reason, your percentage on exam #2 would be 90%, which is 90 points ( $90\%/100\% \times 100$  points).

The final exam is scheduled as designated in the Schedule of Classes for this term. No other time for the final exam will be available, and no exception will be made for conflicts such as student travel plans or other exams the same day. Students arriving late to an exam will **NOT** be given extra time. Students will not be able to leave and re-enter the room once the exam begins for any reason (including bathroom breaks). No students will be allowed to enter and take an exam after one student

has finished an exam and left the exam room. **Students who arrive after another student has left will receive a zero for their exam score.**

If more than 75% of the class answers an exam question incorrectly, everyone will receive credit for that question.

### CALCULATING GRADES

If you are taking the 3-credit lecture only section of the course, the total points possible for the course is 620 points. If you are taking the 4-credit section that includes the lecture and lab, the total points possible is 870 points (620 points from lecture + 250 points from lab). **There is absolutely no opportunity for extra credit or alternate assignments under any circumstances.** All exam scores will be posted in the Grade Center on Blackboard. **Exams will not be given in advance.**

The final scores in lecture are calculated using scores from the five exams and points for participation in learning community weekly meetings. **It is the student's responsibility to keep track of his/her scores.**

You can fill in the blank lines below to keep track of your scores.

Exam I	_____ (out of 100)
Exam II	_____ (out of 100)
Exam III	_____ (out of 100)
Exam IV	_____ (out of 100)
Final Exam	_____ (out of 200)
Learning Community	_____ (out of 20)

If you are taking the 3-credit lecture only section, add all the scores above, divide by 620, then multiply by 100 to determine your final percentage.

If you are taking the 4-credit section, add all the scores above to the total score from your lab (out of 250), divide by 870, then multiply by 100 to determine your final percentage.

**Final grades are assigned based on the following percentage:**

A	93.5 - 100%	C	72.5 - 75.4%
A-	89.5 - 93.4%	C-	69.5- 72.4%
B+	85.5 -89.4%	D+	65.5 - 69.4%
B	82.5 -85.4%	D	62.5 - 65.4%
B-	79.5 - 82.4%	D-	59.5 - 62.4%
C+	75.5 - 79.4%	F	≤ 59.4%

### **GRADE DISPUTES**

Students will have one (1) week after the return of an exam 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.

### **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:

- The University Newsline (313) 577-5345\*
- WSU Homepage ([www.wayne.edu](http://www.wayne.edu))\*
- WSU Academica (<https://academica.wayne.edu/>)\* and
- By other local radio and television stations.

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

### **EXAM TIME CONFLICTS**

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) contact the instructor of the course with the lowest number of 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 exam. Our class has 259 students.

### **RELIGIOUS HOLIDAY CONFLICTS**

Students who have a conflict with any of the scheduled exam times due to religious reasons must notify Dr. Turchyn in writing by class time on **Monday, January 22<sup>nd</sup>**. **Accommodations will not be provided unless she is notified in writing by this date.**

### **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. SDS telephone number is 313-577-1851 or 313-577-3365 (TTY: telecommunication device for the deaf; phone for hearing impaired students only). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Please refer to the SDS website for further information about students with disabilities and the services we provide for faculty and students:

<http://studentdisability.wayne.edu/>



The lectures will be audio- but not video-recorded and posted in the Echo360 Cloud on Blackboard. If there are any problems with the lecture capture system, please contact Computing & Information Technology (C& IT) at (313) 577-4778 or [helpdesk@wayne.edu](mailto:helpdesk@wayne.edu). You are welcome to record lectures for your personal use and to take pictures of my handwritten notes, questions, and concept maps. **All lecture PowerPoint slides can be found in the Lecture Slides on Blackboard.**

Here is the schedule with dates of all the exams and the tentative schedule indicating which chapter(s) will be covered each class day. Note that some chapters may take more or less time than indicated on the schedule below.

<b>Date</b>	<b>Topic</b>	<b>Chapter(s)</b>
1/8	Course introduction	
1/8	The chemical basis of life	2
1/10	The chemical basis of life	2
1/12	The chemical basis of life	2
1/12	The molecules of cells	3
<b>1/15</b>	<b>NO CLASS — MARTIN LUTHER KING JR. DAY</b>	
1/17	The molecules of cells	3
1/19	The molecules of cells	3
1/22	A tour of the cell	4
1/24	A tour of the cell	4
1/26	The working cell	5
<b>1/29</b>	<b>EXAM #1</b>	<b>2-5</b>
1/31	How cells harvest chemical energy	6
2/2	How cells harvest chemical energy	6
2/5	Photosynthesis: using light to make food	7
2/7	Photosynthesis: using light to make food	7
2/9	The cellular basis of reproduction and inheritance	8
2/12	The cellular basis of reproduction and inheritance	8
2/14	The cellular basis of reproduction and inheritance	8
2/16	Patterns of inheritance	9
<b>2/19</b>	<b>Exam #2</b>	<b>6-9</b>

<b>Date</b>	<b>Topic</b>	<b>Chapter(s)</b>
2/21	Patterns of inheritance	9
2/23	Molecular biology of the gene	10
2/26	Molecular biology of the gene	10
2/28	How genes are controlled	11
3/2	How genes are controlled	11
3/5	DNA technology and genomics	12
3/7	DNA technology and genomics	12
<b>3/9</b>	<b>Exam #3</b>	<b>9-12</b>
<b>3/12-3/16</b>	<b>NO CLASS - SPRING BREAK</b>	
3/19	How population evolve	13
3/21	How population evolve	13
3/23	The origin of species	14
3/26	The origin of species	14
3/28	Tracing evolutionary history	15
3/30	Tracing evolutionary history	15
4/2	The evolution of plant diversity	17.1-17.10
4/4	The evolution of plant diversity	17.1-17.10
4/4	The evolution of invertebrate diversity	18
4/6	The evolution of invertebrate diversity	18
<b>4/9</b>	<b>Exam #4</b>	<b>13-15, 17.1-17.10, 18</b>
4/11	The evolution of vertebrate diversity	19.1-19.8
4/13	Nutrition and digestion	21
4/16	Nutrition and digestion	21
4/18	Gas exchange	22
4/20	Gas exchange	22
4/23	Circulation	23
<b>4/30</b>	<b>Final Exam</b>	<b>All topics covered</b>