

Biology 105  
Biological Concepts: Unity  
Section A09C-HS106  
Spring 2012

Dr. Jennifer M. Zaspel  
Office: HS36  
Telephone: 424-1044  
email: [zaspelj@uwosh.edu](mailto:zaspelj@uwosh.edu)

***Office hours***

MW 10:20-12:20. I am happy to make appointments outside of my normal office hours. Please contact me by phone or e-mail.

***Course Description***

Biology 105 is the introductory course for all Biology courses on this campus, serving as a general education course for many and the first step towards the nursing program for others. It is assumed you are entering this course with no real background in Biology. The main focus of the course is to examine the characteristics shared by all living organisms. This boils down to the bulk of the course being an introductory cell biology course. We begin by studying basic chemistry, then move on to biological molecules and how they interact, then onto cells and cell structure, how cells make and use energy, how they reproduce, and finally how cells and organisms evolve. Throughout the course I will be tying the material into real life examples about how Biology relates to your everyday life (and it really, really does). I hope you leave the course with a better understanding of basic biology that enables you to make informed decisions about your life, and current political issues such as genetically modified organisms and stem cell research among others.

***Statement on Liberal Education***

As part of your education at UW Oshkosh, you are asked to take a number of courses that are lumped under the term “General Education”. What we want you to gain from these courses is what is commonly called a “Liberal Arts” education. Liberal Arts is defined in a number of ways, but I feel the best definition is “a set of skills and knowledge that make you a well-rounded individual capable of becoming a competent citizen of the world.” Don’t treat gen ed courses, such as this one, as merely things to be taken to “get them out of the way.” We as an institution and I as an instructor feel that liberal education is very important and we are constantly working to give you the skills and knowledge we know you need...hence gen ed courses! For instance, in Biology 105, you will not only learn about basic Biology and Chemistry, but you will work on your critical thinking skills (via learning and application of the scientific method) your written communication skills (via lab reports), and your knowledge of the physical and natural world. Critical thinking and writing are skills you need no matter what career you choose.

***Lecture information***

**Lecture Schedule:** 9:10-10:10 a.m. MWF in Halsey 106.

**Lecture Text:** Reece et al.: Biology: Concepts and Connections, Seventh Edition, Pearson Cummings Custom Publishing, San Francisco, CA.

**Lecture Format:** Lectures will be presented via Powerpoint. I will frequently refer to the figures, so you should bring your text to class and make note of any figures from the text that I specifically reference.

**Lecture exams:** We will have four lecture exams on the scheduled dates (please see the lecture/lab schedule). Each exam will be worth **100 points**, and consist of 50 multiple-choice questions (each question is worth 2 pts). I write all exam questions based on the material I present in lecture.

**Make-up exam:** If you miss a lecture exam, I will offer a make-up exam during the last week of the semester. The exam will be comprehensive in nature. Your grade on the make-up exam will replace the zero you received for the missed exam.

**Lecture Quizzes:** There will be a total of 10 lecture quizzes over the course of the semester. They will be worth 10 points each and be variable in format...short answer, fill in, or multiple choice.

**Lecture Attendance Policy:** I will not take attendance. However given that each lecture represents ~10% of the subsequent exam, skipping lecture is the most foolish and grade-damaging thing a college student can do. I will not repeat lectures and I do not publish my lecture notes. If you want to know what will be on the next exam, you have to come to class every day. If you skip class you will have to get notes from a fellow student. Any student with a valid excused absence will be allowed to make up any missed material, with the exception of in-class quizzes. An excused absence does not excuse a student from the responsibility of knowing the material covered during the day class was missed.

Students with disabilities are asked to contact their lecture and lab instructors in the first week of class so that all possible accommodations may be arranged.

**How to be successful in Biology 105:** This is advice that I give students when they come to my office after the first exam with questions on how they can improve their performance. Not all of these items will work for every person, but some of them will work for you. For each college class you take, you will need to figure out a different way of studying and preparing for the class.

1. COME TO CLASS.
2. COME TO CLASS.
3. Take good notes.
4. Re-write or type your notes from each lecture.
5. Form a study group.
6. Answer the questions on the study guides I post.
7. Go to SI sessions.
8. Go to CAR and get a tutor (it is free).
9. Go to CAR and use their other resources.
10. Ask me questions, in person, during office hours, after class, or by e-mail.
11. Ask your lab instructor questions.
12. Explain the material to family and friends.
13. Use active study techniques-just reading and re-reading your notes will not do it.
14. Use the questions in the chapters to test your knowledge of the material.

### ***Laboratory Information***

**Laboratory Instructor(s):** Each laboratory instructor will provide their contact information and office hours in their lab syllabus, which they will post on the D2L site for your lab section. **Laboratory meeting times:** Labs will meet every week at the assigned times in Halsey 211.

**LABORATORY TEXT: BIO 105: Concepts in Biology: Unity: Laboratory Manual. Bring it** (along with lecture text) to every laboratory meeting.

**Laboratory Grade:** You will have 300 points assigned by your lab instructor for work done in lab, and this may be in the form of lab reports, quizzes, or other assignments as given by your lab instructor. Please see your lab syllabus, as posted or distributed by your lab instructor, for details on how your 300 lab points will be assigned.

### ***Lecture and Lab Information***

**Grading:** There is a total of **800 points** possible for the semester (400 points from lecture exams, 100 points from 10 lecture quizzes and 300 points from lab). I will calculate your grade by dividing the total number of points you earn over the semester by 800, which will yield a percentage. This percentage will be converted into a letter grade using the scale below:

#### ***GRADING SCALE:***

93-100% = A
90-92% = A-
87-89% = B+
83-86% = B
80-82% = B-
77-79% = C+
73-76% = C
70-72% = C-
67-69% = D+
63-66% = D
60-62% = D-
<60% = F

### ***Accessing Grades and Class Information***

I have set up this course on the D2L site and will post all grades there. In addition, I will also post messages to the class, sample exams, and review sheets. If you have any questions or problems using the site please see me.

### ***Statement on Academic Dishonesty***

Students are referred to the University of Wisconsin Oshkosh Student Discipline Code as detailed in specific provisions of Chapter 14 of the State of Wisconsin Administrative Code. Any student(s) found in violation of any aspect of the above Code (as defined in sections UWS 14.02 and 14.03) will receive a sanction as detailed in UWS 14.05 and 14.06. Examples of violations include: looking at another student's exam or answer sheet and copying the answers during an exam, talking or whispering to another student during an exam, receiving text messages during an exam on an electronic device, or listening to answers or information recorded on an electronic via earphones during an exam. Sanctions range from a grade of zero for the assignment in question to an oral reprimand to expulsion from the University of Wisconsin Oshkosh. Students have the right to request a hearing and to appeal sanctions (as defined in UWS 14.08-14.10).

### ***Statement on Use of Electronic Devices in Class***

In order to protect and foster the proper learning environment, the use of cell phones is not allowed in lecture or lab. That includes sending or receiving voice or text messages, or even checking to see if new calls/messages have come in. Please turn your phone off at the start of class to prevent interruptions from incoming calls. Wireless laptop computers are allowed, but only if their use is limited to activities directly related to course performance such as taking notes or looking up content on the web. Use of portable music devices is not allowed in lecture or lab at any time. Use of any electronic device during an exam will result in an automatic zero for that exam.

**E-mail Policy:**

Part of being a student and on the way to being a professional is learning how to communicate like a professional. Along those lines, any e-mail sent to me **must have Biology 105 in the subject line** and **must be addressed to Dr. Zaspel or Dr. Z**, and must be written in complete sentences, use proper grammar, and not contain any text speak. I reserve the right to not respond to e-mails that do not meet these criteria. If I do not respond, go back and check the message you sent for violations.

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**Lecture and Laboratory Syllabus--Biology 105—Spring 2012**

<b>Lecture #</b>	<b>Date</b>	<b>Lecture Topic</b>	<b>Text Reading</b>	<b>Lab Topic</b>
1	Jan. 30	Syllabus, Overview of Science and Biology	1.1-1.6	Exercise 1
2	Feb. 1	Basic Chemistry: Elements, Atoms, and Bonds	2.1-2.8	
3	Feb. 3	Water, Chemical Reactions	2.9-2.18	
4	Feb. 6	Molecules	3.1-3.10	Exercise 2
5	Feb. 8	Molecules	3.11-3.16	
6	Feb. 10	Introduction to Cells	4.2-4.13	
7	Feb. 13	Organelles	4.14-4.23	Exercise 3
8	Feb. 15	Organelles/ Membrane structure and function	5.1-5.5	
9	Feb. 17	Transport	5.6-5.10	
10	Feb. 20	Energy and Enzymes	5.11-5.16	Exercise 4
*	Feb. 22	Review for Exam	*	
*	Feb. 24	<b>Lecture Exam I (lectures 1-10)</b>		

11	Feb. 27	Cell Respiration I	6.1-6.7	Exercise 5
12	Feb. 29	Cellular Respiration II	6.8-6.16	
13	March 2	Photosynthesis I	7.1-7.6	
14	March 5	Photosynthesis II	7.7-7.11	Exercise 6
15	March 7	Photosynthesis III	7.13-7.14	
16	March 9	Prokaryotic Cell Division, Cell Cycle, Cancer	8.1-8.11	
17	March 12	Mitosis, Meiosis	8.12-8.15	Exercise 7
*	March 14	Review for Exam II	*	
*	March 16	<b>Lecture Exam II (lectures 10-17)</b>	*	
*	March 19-23	Spring Break		
18	March 26	Chromosome Structure	8.16-8.24	Exercise 8
19	March 28	Mendelian Genetics I	9.0-9.4	
20	March 30	Mendelian Genetics II	9.5-9.9	
21	April 2	Mendelian Genetics III	9.11-9.23	Exercise 9.1
22	April 4	DNA I: History and Replication	10.2-10.7	
23	April 6	DNA II: Transcription and Translation	10.8-10.16	
24	April 9	Microbial Genetics	10.17-10.23	Exercise 9.2
*	April 11	Review for Exam III	*	
*	April 13	<b>Lecture Exam III (lectures 18-24)</b>	*	
25	April 16	Cloning and Genetic Basis of Cancer	11.12-11.18	Exercise 9.3
26	April 18	DNA Technology	12.1-12.2, 12.6-12.9	
27	April 20	How Populations Evolve: Darwin's Theory of Evolution	13.1-13.5	
29	April 23	How Populations Evolve: Populations and Microevolution	13.7-13.17	Exercise 9.4
30	April 25	The Origin of Species: Species and Speciation	14.1-14.6	
	April 27	The Origin of Species: Species and Speciation II	14.10-14.13	

31	April 30	Evolutionary History	15.1-15.5	Exercise 10
32	May 2	Catch-up Day and SOS	*	
*	May 4	Review for Lecture Exam IV and Comprehensive Exam	*	
*	May 7	<b>Lecture Exam IV (25-31)</b>	*	No Labs
*	May 9	<b>Comprehensive Make-up Exam</b>	*	
	May 11	<b>No class</b>		