Biology 105: The Summer Session
Biological Concepts: Unity
Section A09C

Lecture Instructor: Dr. Todd Kostman
Office: HS 142 (Biology Main Office)
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OFFICE HOURS

M-Th 12:00 p.m.-1:00 p.m. I am happy to make appointments outside of my normal office hours-just contact me by phone or e-mail or talk to me after class.

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 of healthcare professional 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.

BIOLOGY 105 and University Studies Program

Biology 105 counts as an Explore: Nature course in terms of your University Studies Program. You are required to take a total of eight credits of Explore: Nature coursework, which are traditionally science courses that include a lab. Depending upon what type of degree you are working toward (BA vs BS vs. BFA …), you may need to take additional Explore: Nature courses.

LECTURE INFORMATION

***LECTURE SCHEDULE*:** 10:10-11:40 M Tu W Th in Halsey 260.

LECTURE TEXT: Campbell 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 from the book, so you should bring your text to class and make note of any figures I specifically reference.

LECTURE EXAMS: We will have four lecture exams on the scheduled dates. Each exam will be worth 100 points, and consist of 50 multiple-choice questions. As you can see, missing even one lecture could have significant impact on your exam performance since each lecture represents about 12% of the material on each exam. I write all of the exam questions myself and do not take any from the book or website, but I encourage you to use the book and website questions to study for exams and quizzes.

QUIZZES: Over the course of the summer term there will be 8 quizzes, worth 10 points each, that will count towards your final grade. All quizzes will be given during lecture, and I may or may not warn you ahead of time that there will be a quiz. Quizzes will be regular, on-paper quizzes and not given via D2L. A quiz missed due to an unexcused absence will result in a zero for that quiz.

Cell Phones: All cell phones must be turned off during lecture and laboratory time. If you must leave it on in case of an EMERGENCY call (i.e. life or death), set it to vibrate. Cell phones going off during lectures or lecture exams may be confiscated and returned after the period is over.

COURSE GRADE: There are a total of 780 points possible for the semester (400 points from lecture exams, 100 points from lab exams, 80 points from lecture quizzes and 200 points from lab assigned by your lab instructor). I will calculate your grade by dividing the total number of points you earn over the semester by 780, 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 over the course. 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 and exam, talking or whispering to another student during an exam, and receiving text messages during an exam on an electronic device. 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).

Laboratory Instructor:

Katrina Olsen
Office: HS 44
e-mail:olsenk10@uwosh.edu

Laboratory meeting times: Labs will meet each week at the assigned time (8:00-10:00a.m.Tuesday and Thursday A02L) in Room 211 and be two hours in length; assume each lab will take the entire period. Labs **cannot be made-up** as there is extensive preparation necessary by our staff (actually we do the preparation as we have no staff help during the summer) for each lab.

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

Laboratory Grade: Your lab grade will consist of 300 total points. You will have one laboratory exam at the end of the semester (worth 100 points). You will also have 200 points assigned by your lab instructor for work you do in lab. Additional information regarding laboratory will be available at your first lab meeting.

Lab Exam: Lab exam will consist of 50 multiple choice questions, each worth 2 points.

Lecture and Laboratory Schedule-Biology 105 Summer 2014

Date	Lecture Topic	Text Reading	Lab Exercise
June 16	Syllabus, Introduction to Biology, Basic Chemistry	1.1-1.10; 2.1-2.9	No Lab
June 17	Bonds, Water, Chemical Reactions	2.10-2.18	
June 18	Molecules	3.1-3.7	Lab 1
June 19	Molecules	3.8-3.16	
June 23	Introduction to Cells	4.1-4.9	Lab 2
June 24	Organelles	4.10-4.23	
June 25	Energy and Enzymes/Review for Exam I	5.1-5.9	Lab 3
June 26	**Lecture Exam I (Chapters 2-4))**	*	
June 30	Membrane structure and function; Osmosis, Transport	5.10-5.16	Lab 4
July 1	Cell Respiration I	6.1-6.7	
July 2	Cellular Respiration II	6.8-6.16	Lab 5
July 3	Cellular Respiration III	6.8-6.16	
July 7	Photosynthesis I	7.1-7.6	Lab 6
July 8	Photosynthesis II	7.13-7.14	
July 9	Photosynthesis III/Review for Exam 2		Lab 7
July 10	**Lecture Exam II (Chapters 5-7)**	*	
July 14	Cell Cycle, Mitosis, Cytokinesis	8.1-8.7	Lab 8
July 15	Meiosis, gametes, chromosomes	8.12-8.19	
July 16	Mendelian Genetics I	9.1-9.9	Start Lab 9.1 (isolate plasmids)
July 17	Mendelian Genetics II	9.11-9.23	
July 21	DNA I: Replication	10.1-10.6	Continue 9.2(do transformation)
July 22	DNA II: Transcription and Translation	10.7-10.15	
July 23	DNA III: Mutations, viruses, and DNA manipulation/Review for Exam 3)	10.16-10.23	Lab 10: Genetics
July 24	**Lecture Exam III (Chapters 8-10)**	*	
July 28	Gene Regulation	11.1-11.17	Finish 9.3 (analyze plates); Lab 11; Evolution and Speciation
July 29	Cloning and Genetic Basis of Cancer	11.12-11.18	
July 30	Evolution I: Darwin and Natural Selection	13.1-13.8	Lab Exam Review
July31	Evolution II: Hardy Weinberg; microevolution	13.9-13.18	
Aug. 4	Evolution III: Speciation	14.1-14.10	Lab Exam (Labs 1-11)
Aug. 5	Evolution IV: Evolutionary History	14.11-15.5	
Aug. 6	Review for Exam IV		No labs
Aug. 7	**Exam IV (Chapters 11, 13, 14, part of 15)**	*	No labs