Biology 1201, Introductory Biology

GENERAL COURSE GUIDELINES
Ohio Northern University, Fall Semester, 2011

Course Overview: Biology 1201 is designed to introduce some of the fundamental concepts and themes that pervade the biological sciences, including basic biochemical concepts, cell structure and function, metabolism, the principles of heredity and gene expression.

Your class normally will meet for three, 1-hour lecture sessions each week plus one, 75 minute laboratory period.

Required Texts: The following text book is required for Biology 1201 and is available at the ONU Bookstore.

1. Life: The Science of Biology by Sadava et al. 9th edition published by Sinauer (978-1-4292-1962-4).

Course Policies: Biology 1201 is a course organized and taught by many different faculty members. Therefore the Department has established several parameters common to all sections being taught this quarter.

Course Website: For your convenience, course materials, including homework assignments, Powerpoint lecture notes, and laboratory exercises may be accessed by logging in to: WebCT (http://webct-new.onu.edu) or YourBioPortal.com (using your code from your textbook). Students are welcome to take advantage of material provided by any instructor at these online locations, not just their own.

Grading:
Your final grade will be determined based upon the following criteria:

1. 3 Preliminary Examinations at 75 Points each	225 Points
2. Final Examination (new material and comprehensive)	150 Points
3. Quizzes & Assignments	140 Points
4. Laboratory Work	70 Points
5. Student Oral Presentation	15 Points
Total Points:	**600 Points**

Grading Scale: A: 90-100%, B: 80-89%, C: 70-79%, D: 60-69%, F: 0-59%

Preliminary and Final Examinations: All instructors teaching the course participate equally in making up the departmental examinations. These will consist of the Preliminary Exams and the Final Exam. The Preliminary Exams will consist of 50 multiple choice questions over the topical areas as indicated in your course syllabus. The Final Exam will consist of 100 multiple choice questions representing a combination of new and comprehensive material. Since all students take the same examinations, they will be administered at a common time. Preliminary Exams will be given at 6:50 a.m. on dates announced by your instructor. The final examination will be administered at 2:00 p.m. on Tuesday, December 13th. Your instructor will assign your location for taking each test.

Quizzes & Assignments: During the semester, your instructor may incorporate quizzes (announced or unannounced) and assignments (in class or homework) to increase your understanding and examine your comprehension of the biological principles discussed in class. The quizzes and assignments used by your instructor for this portion of your grade may not be uniform throughout the department.

Homework Assignments: There will be multiple course-wide homework assignments. These assignments must be turned in at the start of class on the announced due date to avoid point deductions.

Laboratory Exercises: Problem sets, worksheets, etc. associated with your laboratory work will be assigned to reinforce key concepts. These exercises must also be turned in at the start of class on the announced due date to avoid point deductions.

Student Presentations: All students will be required to give an individual oral presentation over a current scientific topic. Your instructor will provide directions and topics as well as the date of the presentations in class.

Extra Credit: There will be no extra credit or bonus points available for this course.

Tutoring Help from the Dean's Office: If you wish to arrange individual tutoring sessions for additional help in this course (in addition to your instructor), please see the information at http://www.onu.edu/node/22108 and the link to request a tutor on the right side of the page.

Academic Accommodation: "Ohio Northern does not discriminate against qualified individuals with disabilities. Accordingly, the school will provide reasonable academic accommodations when the student provides sufficient documentation describing his or her disability and the accommodation(s) requested in accordance with school procedures." If you have a documented disability, please inform your instructor during the first week of class so support can be provided to help you be successful in class. If you have any questions about ONU's policies, please

- see the student handbook, Appendix E – ONU Disabilities Policy
- visit the Disability Services website: http://wwwnew.onu.edu/student_life/disability_services
- contact Melissa Verb: 419-772-2534 or m-verb@onu.edu (A &S students) or the dean of your college.

Attendance: An attendance policy is established by each instructor and may not be uniform throughout the department. In general, class attendance is expected for the best possible learning experience, and will almost always improve your grade. Although no points will be awarded for class attendance, your instructor may deduct points for missed classes. Missed assignments cannot be made-up unless the instructor is notified **BEFORE** the quiz/exercise with a valid excuse (i.e., athletic participation, severe illness). This assignment can be made up at the instructor's discretion.

Academic Conduct: The Department takes the issue of academic honesty seriously and we encourage you to conduct yourself with the highest level of integrity at all times. As outlined by the University's Code of Student Academic Conduct, academic misconduct includes, but is not limited to, plagiarism, cheating, and/or improper collaboration. Instances of academic misconduct will be dealt with in the following manner: a first infraction will result in a student receiving a zero for that assignment. A second infraction will result in a student receiving a failing grade (F) for the course. These are the minimal penalties for academic misconduct in this course and additional actions may be taken if warranted by the nature of the academic misconduct. All actions will be taken as directed by the College of Arts and Sciences Code of Academic Student Conduct.

Course Schedule

Week #	Date	Chapter	Laboratory Exercise
1	22-Aug	1 Studying Life	Natural Selection/Evodots
	24-Aug	2 Small Molecules and the Chemistry of Life	
	26-Aug	2 Small Molecules and the Chemistry of Life	
2	29-Aug	3 Proteins, Carbohydrates, and Lipids	The Compound Microscope
	31-Aug	3 Proteins, Carbohydrates, and Lipids	
	2-Sep	3 Proteins, Carbohydrates, and Lipids	
3	5-Sep	***LABOR DAY BREAK***	
	7-Sep	4 Nucleic Acids and the Origin of Life	Student Group Modeling Project
	9-Sep	4 Nucleic Acids and the Origin of Life	
4	12-Sep	5 Cells: The Working Units of Life	Cell Microscopy
	14-Sep	5 Cells: The Working Units of Life	
	16-Sep	5 Cells: The Working Units of Life	
5	19-Sep	6 Cell Membranes	Diffusion and Osmosis
	20-Sep	***PRELIMINARY EXAMINATION 1 @ 6:50 am***	
	21-Sep	6 Cell Membranes	
	23-Sep	8 Energy, Enzymes, and Metabolism	
6	26-Sep	8 Energy, Enzymes, and Metabolism	Enzyme Laboratory
	28-Sep	8 Energy, Enzymes, and Metabolism	
	30-Sep	9 Pathways that Harvest Chemical Energy	
7	3-Oct	9 Pathways that Harvest Chemical Energy	Oxidative Respiration and Fermentation
	5-Oct	9 Pathways that Harvest Chemical Energy	
	7-Oct	9 Pathways that Harvest Chemical Energy	
8	10-Oct	***FALL BREAK***	
	12-Oct	10 Photosynthesis: Energy from Sunlight	NO LAB
	14-Oct	10 Photosynthesis: Energy from Sunlight	
9	17-Oct	10 Photosynthesis: Energy from Sunlight	The Hill Reaction and Carbon Fixation in Photosynthesis
	19-Oct	11 The Cell Cycle and Cell Division	
	21-Oct	11 The Cell Cycle and Cell Division	

Week #	Date	Chapter	Laboratory Exercise
10	24-Oct	11 The Cell Cycle and Cell Division	Mitosis Laboratory
	25-Oct	***PRELIMINARY EXAMINATION 2 @ 6:50 am***	
	26-Oct	12 Inheritance, Genes, and Chromosomes	
	28-Oct	12 Inheritance, Genes, and Chromosomes	
11	31-Oct	12 Inheritance, Genes, and Chromosomes	Human Genetics Laboratory
	2-Nov	12 Inheritance, Genes, and Chromosomes	
	4-Nov	13 DNA and Its Role in Heredity	
12	7-Nov	13 DNA and Its Role in Heredity	Corn Genetics
	9-Nov	13 DNA and Its Role in Heredity	
	11-Nov	14 From DNA to Protein: Gene Expression	
13	14-Nov	14 From DNA to Protein: Gene Expression	CD - DNA to Protein
	16-Nov	14 From DNA to Protein: Gene Expression	
	18-Nov	15 Gene Mutation and Molecular Medicine	
14	21-Nov	15 Gene Mutation and Molecular Medicine	NO LAB
	22-Nov	***PRELIMINARY EXAMINATION 3 @ 6:50 am***	
	23-Nov	***THANKSGIVING BREAK***	
	25-Nov	***THANKSGIVING BREAK***	
15	28-Nov	16 Regulation of Gene Expression	CD – Recombinant DNA
	30-Nov	16 Regulation of Gene Expression	
	2-Dec	17 Genomes	
16	5-Dec	17 Genomes	CD – Gene Therapy
	7-Dec	18 Recombinant DNA and Biotechnology	
	9-Dec	18 Recombinant DNA and Biotechnology	
Finals	13-Dec	***FINAL EXAMINATION @ 2:00 pm***	