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BIOB 101N.50: Discover Biology - Online

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Discover Biology 101N	
Instructor: Dr. Eugene Kroll *Contact Information*: Email: evgueny.kroll@mso.umt.edu Secondary email: eugenekroll@gmail.com Phone (in emergencies): 5108477813	*Class Dates & Location:* This course is taught online via Moodle (https://moodle.umt.edu) and Mastering Biology (http://www.masteringbiology.com)
Tech support: UMOnline: 406-243-4999 courseware-support@umontana.edu IT Central Help Desk: 406-243-4357 itcentral@umontana.edu Pearson Support: 1.800.677.6337	*Office Hours:* I will check my email each weekday and will respond to those I receive at that time within two working days. Discussion Board can be used to ask general questions that can be of interest to all.

I. COURSEWORK

Description: Discover Biology 101N (for non-majors) aims to introduce you to and help you explore concepts fundamental to the principal domains of modern biology: molecular and cellular biology, ecology, evolution and genetics. There are 7 units organized into modules that contain required reading, reading tests, lectures, labs, homework and exams.

Overall Learning Outcomes: Upon completion of this course you should be able to recognize levels of biological organization and understand how the scientific method is used to test hypotheses concerning patterns and processes in nature. You should come away with a basic understanding of the conceptual frameworks that organize cell biology, genetics, evolution and ecology. Finally, you will briefly critique a scientific paper. Your goal in this activity will be to learn to decode and criticize the vocabulary, rhetoric and methods used to report new findings in medicine, dietology and environmental biology. You will be provided a questionnaire to guide your analyses.

A. Reading Assignments

Required chapters should be read before lectures and labs. The course textbook is on *Campbell Essential Biology, 4rd ed.*, by Simon, Reece and Dickey, located at www.masteringbiology.com, and called "eText" on MasteringBiology. MasteringBiology is required for this class. You have the option of an eText that is within MasteringBiology or a print book package that includes a Mastering access code, from our U. of Montana Bookstore. You need to purchase one or another (not both) at the Bookstore or online. Look for the file "MasteringBiology access" in Unit One on Moodle to guide you through the sign-up process. Once you access www.masteringbiology.com, register for your MasteringBiology course: the ID is BIOB101NFALL2014. Consult Moodle (https://moodle.umt.edu) for the required chapters for the current Unit.

If you have any technical issues with MasteringBiology, please visit http://247pearsoned.custhelp.com/ or call 1.800.677.6337.

B. Lectures

Lectures are presented as PDF files found in their respective units on Moodle.

C. On-line Laboratories

There are 11 online laboratories organized along with their corresponding lectures and reading material within the 7 Units. The first three labs are free and accessed by their links on Moodle, the rest will come in your package from the UC bookstore or purchased directly online at www.biologylabsonline.com as outlined in the file "MasteringBiology Access.pdf" in Unit One on Moodle.

D. Forum

There is a general discussion forum at the top of Moodle page which students can use to post general comments/questions about course material. I ask that you please refrain from posting anything that is exam-related. I will read the posts an answer them if appropriate.

E. Technical Requirements

Students must have software capable of downloading and reading PDF files and their computer must be Java-enabled. IMPORTANT – in Unit One, it is imperative that you take the Moodle tutorial. This important orientation will require less than 1 hour of your time and will be in your Learning Unit 1. You will earn a Moodle certificate which is a requirement for this course. For those who have done it in other courses, you may upload your certificate to Moodle or send it to me via email.

II. GRADED ASSIGNMENTS

All assignments are due by 11pm on the Friday of the assigned week

A. Homework on Moodle

- Practice assignment
- Moodle certificate (http://umonline.mrooms.net/course/view.php?id=3927)
  - If you have done this before, please just upload your Certificate to Moodle.
- Two homework assignments
  - You can use your lectures/textbook for these. If you have to go to any other sources, you will have to properly reference them. Please avoid using Wikipedia, Online dictionaries and similar sources.
- A questionnaire covering Scientific paper
  - Carefully read the required pages and answer my questions.

B. **Homework on MasteringBiology**

- MasteringBiology Quiz
- Textbook reading tests

After reading each chapter of textbook, there will be a *reading test* to estimate of how well the book material is assimilated. The grades for the reading tests will be a part of your overall grade for the course.

C. Exams/Quizzes

- Exams (called "quizzes" in Moodlespeak) will be available during their scheduled week. Each exam will have review topics posted at least 1 week prior to focus study on key components of the units or labs.

- **Once begun, exams must be completed as students cannot exit and re-enter the exam.** If connection is lost, the student will be allowed to re-enter the exam **once** after contacting the instructor and requesting access to the exam. This is called "technical exemption." It is the students' responsibility to utilize a reliable internet connection.

- Three Lab Exams based on the online laboratory work. Each Lab Exam will take into account the labs immediately preceding it (since the last Lab Exam). Lab exams will consist of **20** multiple choice questions and you will have **60** minutes for each exam.
- Four Lecture Exams based on lectures/reading material since the last Lecture Exam. Study Guides will help you to study for each Lecture Exam. Each examination will consist of **50** multiple-choice questions. You will have **90** minutes to complete each exam.
- The Comprehensive Final must be completed by **the last day of the Finals week** (consult the schedule below). Final Exam will have **67** multiple-choice questions. You will have ✔ Lecture Exam 1 Quiz **120** minutes to complete it. *There is no separate Study Guide for the Final as all questions in the Final Exam will be variants of questions on previous Lecture exams*.
- Grading

Category	***No. points***	***Total***
Homework	10 (Practice), 15 (Moodle), 40 (Homeworks)	65
Scientific paper	35	35
Reading tests*	7	100
Lab exams	3 * 50 pts.	150
Lecture exams	4 * 100 pts.	400
Final Exam	1 * 250 pts.	250
		1000 pts.

*Reading tests' raw points will be converted to 100 Moodle points by dividing 0.63 *at the end of the semester*

GRADES WILL BE ASSIGNED ON A SEMI-RELATIVE SCALE. THE PASSING GRADE INTERVAL WILL BE FROM 50% UP TO THE MEDIAN VALUE OF THE FIVE BEST POINT GRADES. THIS INTERVAL WILL BE DIVIDED IN 4 EQUAL PORTIONS, TOP BEING A, THEN B, THEN C AND D. EVERYTHING LOWER THAN 50% WILL BE GRADED AS F, OR NO PASS.

EXTRA POINTS.

At my discretion, I may award extra 5 points to those students who have found meaningful errors in the layout of the course. Please do not report typos, unless you find a consistent misspelling of an important scientific term. We use the American spelling throughout.

III. COURSE POLICIES

A. Late Submission of Work and Examinations

There will be a penalty for late submission of work. **10** points will be subtracted each week for late homework or exam. I will take into account any **documented** extenuating circumstances. But try your utmost **NOT TO FALL BEHIND!**

B. Honesty and Code of Conduct

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at: http://life.umt.edu/vpsa/documents/StudentConductCode1.pdf

C. Course Accommodations

Students with disabilities will receive reasonable accommodations in this online course. To request course modifications, please contact me as soon as possible. I will work with you and Disability Services in the accommodation process. For more information, visit the Disability Services website or call 406.243.2243 (Voice/Text).

UNIT SCHEDULE

UNITS	WEEKS	LABORATORIES	ASSIGNMENTS Due on Friday at 11pm
UNIT ONE – Levels of biological organization and the scientific method	**Week 1** Starts 8/25	**LAB. 1**–Biological organization and the scientific method	**Moodle: Practice Assignment** Due 8/29 **Moodle Certificate** Due 8/29 **Masteringbiology Quiz** Due 8/29
UNIT TWO – Chemistry of Life	**Week 2** Starts 9/2	**LAB. 2** – Diet analysis	**Masteringbiology: Unit Two reading test** Due 9/5
UNIT TWO – Chemistry of Life	**Week 3** Starts 9/8		**Moodle: Lecture exam 1** Due 9/12
UNIT THREE – Cell Structure and function	**Week 4** Starts 9/15	**LAB. 3 –** Cell structure and function	**Masteringbiology: Unit Three reading test** Due 9/19
	Week 5 Starts 9/22		**Moodle: Lab exam 1** Due 9/26
UNIT FOUR – Energy production and utilization	**Week 6** Starts 9/29	**LAB. 4** – Leaf Lab **LAB. 5** – Mitochondria	**Moodle: Homework 1** Due 10/3 **Masteringbiology: Unit Four reading test** Due 10/3
	Week 7 Starts 10/6		**Moodle: Lecture exam 2** Due 10/10
UNIT FIVE – Ecology	**Week 8** Starts 10/13	**LAB. 6** – Population Ecology **LAB. 7** -Demography	**Masteringbiology: Unit Five reading test** Due 10/17
	Week 9 Starts 10/20		**Moodle: Lecture exam 3** Due 10/24
	Week 10 Starts 10/27		**Moodle: Lab exam 2** Due 10/31
UNIT SIX – Heredity	**Week 11** Starts 11/3	**LAB. 8** – Fly Lab **LAB. 9** – Population genetics	**Masteringbiology: Unit Six reading test** Due 11/7
	Week 12 Starts 11/10	**LAB. 10** – Translation **LAB. 11** – Evolution	**Moodle: Homework 2** Due 11/14
UNIT SEVEN – Evolution	**Week 13** Starts 11/17		**Moodle: Lecture exam 4: covers Units Six & Seven** Due 11/21 **Masteringbiology: Unit Seven reading test** Due 11/21
	Week 14-15 **Thanksgiving** Starts 11/24		**Moodle: Read scientific paper and complete questionnaire-** Due 12/5 **Moodle: Lab exam 3: covers Labs 8-11** Due 12/5
	Finals Week 12/8		**Moodle: Final Exam** **Due 12/12**