

INSTITUTION: Great Falls College Montana State University

COURSE TITLE: Discover Biology with Lab On-line

COURSE NUMBER: BIOB 101 80

COURSE CREDITS: 3 Lecture, 1 Lab

SEMESTER/YEAR: Summer 2015

INSTRUCTOR: Quincie Lords, MS

OFFICE HOURS: on-line

Email: quincie.lords@gfcmsu.edu,
(406) 268-3723

Office phone
Home phone (406) 899-3123 emergencies only. I will be on line M -F and will respond to your questions in a 24 hour time frame.

I. COURSE DESCRIPTION

This course introduces basic biological principles including the cell, the interrelationship of structure and function, and the characteristics and classification of living things. Students will examine the classification of organisms—concentrating on vascular plants and vertebrate animals, as well as reproduction and basic ecological concepts. This general education course is designed for non-science majors.

II. COURSE MATERIALS

1. Simon, Dickey & Reece, Essential Biology, 5th ed, Benjamin Cummings, San Francisco, CA. ISBN-10: 0321772598 • ISBN-13: 9780321772596 this includes the Mastering Biology with eText—Access Card Package
NOTE: We will be using the MasteringBiology website as a regular part of the class so you **must purchase the access card package**. If you already have a textbook you can purchase the access card package separately.
2. Course Web page: D2L.

III. COURSE OBJECTIVES

This course emphasizes two major goals:

1. To enable students to develop an understanding of the principal concepts of biology.
2. To enable students to experience science as a process of problem solving and discovery.

Focusing on concepts rather than memorization of technical detail allows students to explore the interconnection of ideas that lead to the broad unifying themes of biology, and enables students to appreciate the delicately balanced interdependency of life.

By the end of the course, each student will be expected to be familiar with the following **objectives**:

- Demonstrate knowledge of the chemical basis of life;
- Demonstrate knowledge of the structures and functions of the cell;
- Demonstrate knowledge of the basic metabolic processes of living organisms;
- Recognize the major groups of living organisms and describe their basic ecology;
- Demonstrate knowledge of the principles of reproduction, development, and heredity;
- Apply appropriate reasoning to evaluate scientific information.

IV. COURSE OUTLINE

Chapter 1 Introduction to Biology
Chapter 2 Essential Chemistry for Biology
Chapter 3 The Molecules of Life
Chapter 4 A Tour of the Cell

- Chapter 5 The Working Cell
- Chapter 6 Cellular Respiration: Obtaining Energy from Food
- Chapter 7 Photosynthesis: Using Light to Make Food
- Chapter 8 Cellular Reproduction: Cells from Cells
- Chapter 9 Patterns of Inheritance
- Chapter 10 The Structure and Function of DNA
- Chapter 12 DNA Technology
- Chapter 13 How Populations Evolve
- Chapter 14 How Biological Diversity Evolves
- Chapter 18 An Introduction to Ecology and the Biosphere
- Chapter 19 Population Ecology

V. COURSE CALENDAR

This schedule is subject to change at the discretion of the course instructor to accommodate instructional and/or student needs.

WEEKS	BIOB 101 SUMMER 2015 ASSIGNMENTS	Weekly assignments Due 11:59pm on Thursdays & Mondays
WEEK 1	Chapter 1: Discussion Introduction – due Thursday, 5/21 MasteringBiology Registration – due by Thursday, 5/21 Mastering Biology CH 1 – due Monday, 5/25 Sample Lab – due Monday, 5/25	
WEEK 2	Chapter 2: Discussion 1 Mastering Biology CH 2 Quiz pH Lab	Due Thursday 5/28
	Chapter 3: Discussion 1 Continued Quiz MasteringBiology CH 3 Cell Lab	Due Monday 6/1
WEEK 3	Chapter 4: Discussion 2 MasteringBiology Ch 4 Quiz Diffusion Lab	Due Thursday 6/4
	Chapter 5: Discussion 2 continued MasteringBiology CH 5 Quiz Food Lab	Due Monday 6/8
WEEK 4	Chapter 6: Discussion 3 MasteringBiology CH 6 Quiz Chromatography Lab	Due Thursday 6/11
	Chapter 7: Discussion 3 continued MasteringBiology CH 7 Quiz TEST #1	Due Monday 6/15

WEEK 5	Chapter 8 Discussion 4 MasteringBiology CH 8 Quiz Mitosis Lab	Due Thursday 6/18
	Chapter 9: Discussion 4 continued MasteringBiology CH 9 Quiz Test #2	Due Monday 6/22
WEEK 6	Chapter 10: Discussion 5 MasteringBiology CH 10 Quiz	Due Thursday 6/25
	Chapter 12: Discussion 5 continued MasteringBiology CH 12 Quiz DNA Lab	Due Monday 6/29
WEEK 7	Chapter 13: Discussion 6 MasteringBiology CH 13 Moth Lab	Due Thursday 7/2
	Chapter 14: Discussion 6 continues MasteringBiology Ch 14 Quiz	Due Monday 7/6
WEEK 8	Chapter 18: Discussion Final thoughts MasteringBiology CH 18 Quiz	Due Thursday 7/9
	Chapter 19: MasteringBiology CH 19 Quiz Mark Lab	Due Monday 7/13
Cumulative Final due by 11:59, Tuesday, July 14th		

VI. COURSE EVALUATION

CLASS PARTICIPATION/DISCUSSIONS -

Weekly participation in this online course is VITAL to your success and is worth 25% of your grade. Please familiarize yourself with the information in the "Start Here" link within the course content section for specific participation expectations. DISCUSSION - The bi weekly discussion is the way to interact with other students in the class. This is also how you gain your participation points in this course. **Points will be earned in the following manner:**

Grading Rubric for Discussions

To achieve the maximum point value of 20 points, your main post must be posted *early* in the discussion, and you must continue posting to your fellow students with meaningful discussions throughout the two weeks the discussion is open. Posting "I agree" or "nicely done" does not promote growth of the discussion, and will not be rewarded with points. Final points for Unit discussions will be awarded according to the following criteria. Plagiarism will not be tolerated in the course. Late posts are not accepted, this means if you post your initial post in the second week of a discussion you will not receive any points for that aspect of the discussion.

Discussion Criterion	Points Awarded
Submits a main post (minimum 100 words) related to discussion topic and cites additional references related to topic. Posted the first week the discussion is open.	8
Expresses opinions and ideas in a clear and concise manner with obvious connection to topic and shows a high level of thought.	4
Demonstrates use of standard written English with respect to: organization, grammar, composition, punctuation, and construction.	2
Responds to at least two students' post or instructor's posts, prior to the closing of the discussion in the second week, with appropriate feedback and or comments promoting growth of discussion.	6
Total Points possible	20

Check the Weekly section of our on line forum; it'll be found under the "Discussions" link. Each week I'd like you to provide your input to the critical thinking question listed and in the second week read and respond to your classmate's posts. The question will involve a topic that relates to the chapter we're covering. I want everyone to feel comfortable with addressing these topics in an honest, well thought out manner. If you don't agree with someone's point of view, feel free to post your position and your reasons for disagreeing. However, you must RESPECT other people's opinions and feelings... keep your discussions rated PG-13. As will be our routine/procedure, please use the reply button when you are answering the question. This keeps the threaded discussion a little more organized, neat, and tidy.

QUIZZES -

Every week you'll be required to complete a quiz over the assigned chapter. Quizzes will account for 10% of your final grade. The quiz will cover information in the readings, discussions, and labs. You may take the practice chapter quizzes in the Study Area of MasteringBiology as often as you like to test your understanding of the material. Once you feel comfortable then take the chapter quiz.

HOMEWORK/ASSIGNMENTS -

Assignment and homework with account for 15% of your final grade. Each week you will login to the Pearson MasteringBiology website (see the MasteringBiology Login Information sheet in the "Course Stuff" section) and do the weekly homework for each chapter. These are a series of questions and practice activities that are designed to help you understand the material before you take the chapter quizzes and tests. The number of points will vary from chapter to chapter. Additionally in the MasteringBiology Study area you will find videos, practice tests and activities to help you learn the content. Other assignments may be posted in D2L throughout the semester.

EXAMS -

Four examinations, will account for 25% of your final grade. They will be given throughout the semester. Exams will be given in a variety of formats; multiple choice, true/false, matching, short answer, and essay. The last exam is cumulative and will be given during finals week.

LAB REPORTS -

You will have approximately 11 lab reports each due throughout the semester. Labs will account for 25% of your final grade. They will require materials that most people have readily available in their homes. However, you may occasionally have to purchase minimal supplies to complete a laboratory activity. It is advisable that you start labs early in the week so that you'll know what supplies you'll need to gather in order to complete the laboratory activity. The format for the lab reports is found in week 1 under "Sample Lab Report"

GRADES -

All assignments, discussions, labs, quizzes, and tests must be submitted by the due date without exception. Your grade will be calculated from your success in the following categories.

Category	Percent
Exams	25%
Quizzes	10%
Lab Reports	25%
Homework & Assignments	15%
Discussion/Participation	25%
Total	100%

Your grade in the course can be monitored through the 'Grades' link on the home page. All grades will be posted within 1 week of the due date unless otherwise noted by the instructor. MasteringBiology grades will be recorded in the MasteringBiology site and moved over to D2L after each test.

The grade scale is as follows:

93% - 100%	A
90% - 92%	A-
88% - 89%	B+
83% - 87%	B
80% - 82%	B-
78% - 79%	C+
73% - 77%	C
70% - 72%	C-
68% - 69%	D+
63% - 67%	D
60% - 62%	D-
Below 60%	F

VII. MIDTERM GRADES:

A midterm grade will be posted using the letter grade scale or "S,U or NA". Some instructors will use the traditional letter grades as well "A, A-, B+, B, B-,C+, C, C-, D+, D, D- and F or P (Pass)".

S - Satisfactory Progress

U - Unsatisfactory Progress

NA - Not Applicable

Please talk to the instructor if you have any questions regarding your midterm grade. The midterm grade isn't posted to your official transcript.

VIII. STUDENT SUCCESS ALERT:

This course is participating in the Student Success Alert program designed to support students in their Great Falls College MSU experience. You are encouraged to approach your faculty member directly if you are experiencing any challenges related to the class or any other aspect of your college life. As a student, you may receive an Alert notice via email (D2L, college or personal) or phone call at any point during the semester from the Advising & Career Center if the faculty member teaching the course has concerns about your class attendance, academic performance, or any other issue related to your success as a student.

IX. ATTENDANCE AND TARDINESS

210.1 ATTENDANCE & NO SHOW

Attendance Policy

Great Falls College recognizes the correlation between attendance and both student retention and achievement. Any class session or activity missed, regardless of cause, reduces the opportunity for learning and may adversely affect a student's achievement in the course.

Class attendance and/or participation is required in all courses, regardless of the method of delivery (face-to-face, hybrid, or online) and students are expected to attend all class sessions for which they are registered. Instructors may establish absence policies at their own discretion within their courses to conform to the educational goals and requirements of their courses; however, policies will be clearly detailed in the course syllabus, which must be provided to each student enrolled in the course. It is the responsibility of the student to arrange make up work missed because of legitimate class absences and to notify the instructor when an absence will occur. The instructor determines the effect of the absences on grades.

For Financial Aid purposes, faculty are required to take attendance in order to report a last known date of attendance for any student receiving a failing final grade.

No Show Policy

In order to receive any letter grade, a student must have attended a minimum of one class meeting or the equivalent in the case of a distance learning course. In a distance learning course, initial student attendance is determined by course participation as measured by accessing and using course materials, completion of a class assignment, participation in a course discussion, or other evidence of participation.

Students, who enroll in a course but do not attend a minimum of one class meeting or the distance learning equivalent by the end of the 15th day of fall and spring semesters, (this deadline is pro-rated for the summer term(s)) will be administratively deleted from the course by Great Falls College administrative personnel. This process will only be carried out after proof of multiple attempts to contact the student is documented by faculty.

Students, who do not attend a class prior to the end of the 15th day of fall and spring semesters, (this deadline is prorated for the summer term(s)) and do not drop themselves from the course will not receive a refund of tuition in the course and will not be allowed to attend/participate in the class or submit assignments. Failure to attend or participate in a course will adversely impact a student's financial aid award and bill with the college.

Please see the link below for more information and the entire policy. http://www.gfcmsu.edu/about/PoliciesProcedures/200/210_1_Attendance_and_No_Show_April_2013_001.pdf

X. ACCOMMODATIONS

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Kathy Meier., M. Ed., Director of Disability Services, in R 261, or call 406-771-4311 to schedule an appointment.

XI. ACADEMIC SUCCESS CENTER

The Academic Success Center helps students successfully complete their courses by providing free tutoring to GFC MSU students in a variety of areas, including writing, math, science, accounting, and computers. The Academic Success Center also helps students improve their study skills. No appointment is necessary. Tutoring is available on campus in R263 and online. For more information, including a current tutoring schedule, go to www.gfcmsu.edu/students/LearningCenter or call 406-771-5121.

XII. PLAGIARISM AND ACADEMIC INTEGRITY

300.14 ACADEMIC HONESTY

The integrity of the academic process requires credit be given where credit is due. Accordingly, it is academic misconduct to present the ideas or works of another as one's own work, or to permit another to present one's work without customary and proper acknowledgment of authorship. Students may collaborate with other students only as expressly permitted by the instructor. Students are responsible for the honest completion and representation of their work, the appropriate citation of sources and the respect and recognition of others' academic endeavors.

300.42 DESCRIPTIONS AND EXAMPLES

D. Plagiarism

This is presenting the work of another as one's own without proper acknowledgment.

Examples of plagiarism include submitting as one's own work the work of another student, ghost writer or commercial writing service; directly quoting from a source without acknowledgment; paraphrasing or summarizing another's work without acknowledging the source; or using facts, figures, graphs, charts or information without acknowledging the source. Plagiarism may occur orally or in writing and may involve computer programs and files, research designs, distinctive figures of speech, ideas and images or any other information that belongs to another person and is not acknowledged as such. Inadvertent or unintentional misuse or appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is still considered plagiarism.

Please see the link below for more information and the entire policy. http://www.gfcmsu.edu/about/PoliciesProcedures/300/300_STUDENT_CONDUCT_AND_GRIEVANCE_002.pdf

XIII. OUTCOMES ASSESSMENT ALIGNMENT

Course Objectives	Aligns with the Following Program/Degree/Division Outcomes	Type of Course Objective <i>Introduce, Reinforce, or Emphasize</i>	Assessment Tool Used to Determine if Course Objective Has Been Achieved	MSU – Great Falls Abilities
Demonstrate knowledge of the chemical basis of life;	Demonstrate thinking, comprehension, and expression of subject matter. Communicate effectively using scientific terminology.	Introduce and Reinforce	Chapter Quizzes, Accumulative Tests, Chapter Assignments, Lab Activities and Lab Reports	A1, A2, A7
Demonstrate knowledge of the structures and functions of the cell;	Demonstrate thinking, comprehension, and expression of subject matter Communicate effectively using scientific terminology	Introduce and Reinforce	Chapter Quizzes, Accumulative Tests, Chapter Assignments, Lab Activities and Lab Reports	A1, A2, A7
Demonstrate	Demonstrate thinking,	Introduce and	Chapter Quizzes,	A1, A2, A7

knowledge of the basic metabolic processes of living organisms;	comprehension, and expression of subject matter Communicate effectively using scientific terminology. Use logical skills to make judgments;	Reinforce	Accumulative Tests, Chapter Assignments, Lab Activities and Lab Reports	
Recognize the major groups of living organisms and describe their basic ecology;	Demonstrate thinking, comprehension, and expression of subject matter Communicate effectively using scientific terminology	Introduce and Reinforce	Chapter Quizzes, Accumulative Tests, Chapter Assignments, Lab Activities and Lab Reports	A1, A2, A5, A7
Demonstrate knowledge of the principles of reproduction, development, and heredity;	Demonstrate thinking, comprehension, and expression of subject matter Communicate effectively using scientific terminology. Integrate through analysis	Introduce and Reinforce	Chapter Quizzes, Accumulative Tests, Chapter Assignments, Lab Activities and Lab Reports	A1, A2, A7
Apply appropriate reasoning to evaluate scientific information.	Use logical skills to make judgments; Identify and solve problems using methods of the discipline. Use logical skills to make judgments. Discuss the role of science in the development of modern technological civilization. Discuss the role of science in the development of modern technological civilization. Integrate through analysis. Demonstrate the relationship between actions and consequences.	Emphasize	Discussions and lab reports	A1, A2, A3, A6, A7

This course feeds into multiple programs and degrees, all of which are not listed here. The alignment listed here is related to the division in which the course originates.

GFC Montana State University Eight Abilities:

The faculty and staff of MSU – Great Falls College of Technology have deemed the following abilities to be central to the personal and professional success of all graduates:

A1 – Communication: *The ability to utilize oral, written, and listening skills to effectively interact with others.*

A2 – Quantitative Reasoning: *The ability to understand and apply mathematical concepts and models.*

A3 – Inquiry and Analysis: *The ability to process and apply theoretical and ethical bases of the arts, humanities, natural and social science disciplines.*


A4 – Aesthetic Engagement: *The ability to develop insight into the long and rich record of human creativity through the arts to help individuals place themselves within the world in terms of culture, religion, and society.*

A5 – Diversity: *The ability to understand and articulate the importance and influence of diversity within and among cultures and societies.*

A6 – Technical Literacy: *The ability to use technology and understand its value and purpose in the workplace.*

A7 – Critical Thinking: *The ability to understand thinking that is responsive to and guided by intellectual standards such as relevance, accuracy, precision, clarity, depth, and breadth.*

A8 – Effective Citizenship: *The ability to commit to standards of personal and professional integrity, honesty, and fairness.*

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