

Spring 2015 Principles of Biology II CRN # 20685

BIOL 1620 Science Bldg. Rm 113 MTWR 10:00-10:50am 4 credits

Instructor: Dr. Jennifer Ciaccio. Campus phone: 652-7779. Email: ciaccio@dixie.edu

Office: Science room 211. Office hours are TR 9-10, MTWR 11-11:30am or by appointment.

Description: BIOL 1620 Principles of Biology II is the second semester of a yearlong series covering fundamental biologic principles for biology majors, including students in the pre-health professions. **Students must be concurrently enrolled in BIOL 1625.**

Required Texts: *Campbell Biology* (9th Edition) by Reece et al.

Biology Program Goals and Learning Outcomes

Goal 1: Demonstrate breadth of discipline-specific knowledge

- **Outcome 1: Students will describe and explain fundamental topics in five principal perspectives of biology:**
- **The chemical and molecular machinations operating within all biological processes**
- **The centrality of genetic systems' governance of life's actions from the cellular to the phyletic**
- **The coordinated regulation of integrated cellular systems and their effect on the physiological functioning of organisms**
- **The dynamic interaction of living systems with each other and their environments**
- **The transforming role of evolution in changing life forms and how evolution explains both the unity and diversity of life**

Goal 2: Demonstrate the capacity to think independently and critically

- Outcome 2: Students will employ scientific methods to acquire, analyze and apply knowledge of biological phenomena.
- Outcome 3: Students will evaluate scientific ideas and information while maintaining receptivity to potential alternative predications.

Goal 3: Effectively convey scientific literacy through various mediums of communication

- Outcome 4: Reading Comprehension: Students will analyze and critique scientific literature: identifying hypotheses, critiquing methods, interpreting data and results, and articulating the context of discussions.
- Outcome 5: Written Communication: Students will produce well-written reports and/or research papers covering topics in biology. These papers will be presented in the accepted formats of scientific research articles.
- Outcome 6: Oral Presentation: Students will publicly present scientific information covering specific topics in the biological sciences. Presentations will adequately communicate data and information in a clear and logical format.

Specific Principles of Biology II Course Objectives:

- describe the structure of a virus and viral multiplication cycles
- describe the structure of bacteria, their methods of reproduction and their ecologic importance
- distinguish among the diversity of protists with respect to morphology and life cycle
- describe the structural, reproductive and functional characteristics of various fungi
- describe the five features of animal body plans: symmetry, cephalization, gut type, body cavity and segmentation
- identify different types of cnidarians, the cell types each possess and their reproductive cycles
- identify the physical characteristics and reproductive cycles of flatworms and roundworms
- identify the diseases caused by flatworms and roundworms
- describe the physical characteristics and habits of rotifers
- distinguish between protostome and deuterostome lines
- describe the physical characteristics and reproductive cycles of mollusks
- identify adaptations of arthropods, which contribute to their success as a group and the differences between individual types
- describe the physical characteristics and reproductive cycles for echinoderms
- describe the characteristics of chordates and distinguish among vertebrate classes
- describe the structure and function of the vertebrate tissues and organ systems
- identify various plant structures and their functions and the reproductive cycles of plants
- distinguish between gymnosperms and angiosperms, and between monocots and dicots

- describe optimal conditions for plant nutrition, transport and growth

Tentative schedule is provided. This schedule may change and the actual chapters covered for a particular exam may change; you must attend class on a regular basis!

Grading Policy: There will be 1000 points possible for this course. Final grades will be based on these ranges:

B+ 87-89.99% C+ 77-79.99% D+ 67-69.99%

A 94-100% B 84-86.99% C 74-76.99% D 64-66.99%

A- 90-93.99% B- 80-83.99% C- 70-73.99% D- 60-63.99%

F <60%

Exams (highest 6 of 7 scores at 100 points each) 600

Online Open-book Quizzes 200

Participation (in class and on line) 100

Final Exam 100

Examinations:

Exam format is varied and may include definitions, matching, labeling, fill-in-the-blank, multiple choice and/or short essay. Exams are cumulative; however, each will emphasize material covered since the last exam. Exams will be completed in the testing center anytime during the hours of operation. It is the student's responsibility to check hours of operation for each and every exam at: http://new.dixie.edu/testing/testing_hours.php

Exam Schedule:

Exam 11/23-26 Exam 22/6-9 Exam 32/20-23 Exam 43/6-16 (spring break) Exam 53/27-30 Exam 64/10-13 Exam 74/24-27 Final Exam Friday May 1, 9:30

College approved absences: Dixie College Policy explains in detail what needs to happen if you anticipate being absent from class because of a college-sponsored activity (athletic events, club activities, field trips for other classes, etc). Please read this information and follow the instructions carefully! The policy can be found at:
<http://www.dixie.edu/humanres/policy/sec5/523.html>

Dmail: Important class and college information will be sent to your Dmail account. This information includes your DSC bill, financial aid/scholarship notices, notification of dropped classes, reminders of important dates and events, and other information critical to your success in this class and at DSC. All DSC students are automatically assigned a Dmail account. If you don't know your user name and password, go to www.dixie.edu and select "Dmail," for complete instructions. You will be held responsible for information sent to your Dmail email, so please check it often.

Disability Accommodations: Students with medical, psychological, learning or other disabilities desiring reasonable academic adjustment, accommodations, or auxiliary aids to be successful in this class will need to contact the DISABILITY RESOURCE CENTER Coordinator (Baako Wahabu) for eligibility determination. Proper documentation of impairment is required in order to receive services or accommodations. DRC is located in the North Plaza Building. Visit or call 652-7516 to schedule appointment to discuss the process. DRC Coordinator determines eligibility for and authorizes the provision of services.

College resources: Several college resources are available to help you succeed. Check out the links for each one to get more information.

If you need help understanding the content of your courses, go to the Tutoring Center located on the 4th floor of the Holland Centennial Commons in Room 431. You can visit them online at <http://dsc.dixie.edu/tutoring/>

If you need help writing papers, go to the Writing Center on the fourth floor of the Holland Centennial

Commons in room 421. You can also visit them online at http://new.dixie.edu/english/dsc_writing_center.php

If you need to use a computer to do schoolwork on campus, go to the Smith Computer Center or in the Dixie College library on the second, mezzanine, or third floors of the HCC.

If you are assigned to take a test in the Testing Center, go to the North Plaza. You can get information on their website at <http://new.dixie.edu/testing/>

The Library has all kinds of information and resources. Visit the Dixie State College Library on the 2nd, and 3rd floors of the Holland Centennial Commons, or go to the library website at <http://library.dixie.edu/>

Classroom expectations: It is the responsibility of an instructor to manage the classroom environment to ensure a good learning climate for all students. Appropriate student behavior includes paying attention when the professor is talking, following instructions, and speaking and acting respectfully to the professor and fellow students. If your behavior is disruptive, I will first let you know verbally that you are behaving inappropriately. If it continues, I will send you written notice that your behavior must change. As a last resort, I will drop you from the class. For more details, please see the disruptive behavior policy at: <http://www.dixie.edu/humanres/policy/sec3/334.html>

Academic integrity: I believe that most students are honest, and I don't want to punish everyone for the few that aren't; however, I will not tolerate cheating. If I discover that you have cheated, you will be given a grade of zero for that assignment or exam and you will not be allowed to make it up. Repeated or aggravated offenses will result in failing the course. Any time you take credit for work you did not do, you are cheating. This includes getting the answers to homework problems from someone else, copying information from a library or internet source and presenting it as if it were your own words (plagiarism), looking at someone else's answers on an exam, and asking someone who has already taken a test about what questions it contains. I have tried to design assignments and exams to minimize the temptation to cheat, but it is not my job to prevent you from cheating. If you cheat and are not caught, it doesn't mean that you "beat the

system." It means you violated the Student Code and forfeited your integrity, whether or not you are caught. You will pay the price, sooner or later. (See "Student Code" <http://www.dixie.edu/humanres/policy/sec5/533.html#appeals>).