



Roger Williams University
Fall 2008
BIO 103: Biology I

Instructor: Dr. David L. Taylor

Office: MNS 240

Phone: 254-3759

Email: dtaylor@rwu.edu

Office hours: Monday & Wednesday, 1:00 PM – 3:00 PM, or by appointment

Course Description and Objectives: *Biology I* is an introduction to the chemical, metabolic, and cellular basis of life. The main focus of the course includes basic chemistry, the structure and function of macromolecules, and the process by which cells acquire energy, communicate, grow, and divide. After establishing a solid foundation in cell biology, students are introduced to molecular genetics and how these concepts are integrated with evolutionary processes.

Course Information: Number 13381, Section 02, Credits 4.0

Lecture Time and Location: MWF, 10:00 AM – 10:50 AM, Nike 101

Lecture Texts (Required):

- (1) Freeman, S. 2007. *Biological Science*, 3rd edition. Benjamin Cummings.
- (2) Knisely, K. 2005. *A Student Handbook for Writing in Biology*, 2nd Edition. W.H. Freeman & Co.

Lecture Website: A website has been designed for this course using “Blackboard” software. The Blackboard site is accessed from *myRWU*, and a “Log In ID” and “Password” are required to enter the system. Contact the Blackboard administrator, Bonnie Hatch, at bbtech@rwu.edu for access problems.

Exams: Students are evaluated by three lecture exams (100 pts each) and one final exam (100 pts). The first exam includes material from the start of class. Subsequent exams (including the final) are non-cumulative, and thus, include only the material covered since the previous exam.

Make-Up Exams: To be eligible to take a make-up exam you *MUST* contact me *prior to* the regularly scheduled exam time/date or provide valid University excuse (documentation). A grade of zero will be recorded if the student does not strictly follow this procedure.

Extra Credit: Aside from the “Professor Meeting” (see below), there are no extra credit assignments.

Seminar Synopses: Students are to attend two of the Science and Mathematics Seminars and write a brief synopsis of each presentation (2-3 pages). The synopsis should include a thorough account of the speaker’s presentation, significance of the topic(s) covered, and the student’s personal evaluation of the speaker (*positives and negatives*). Each assignment is graded out of 50 point and are due November 3 (1st synopsis) and December 5 (2nd synopsis). Students may turn in assignments before the posted due date. A listing of speakers and topics of the seminars is found at <http://departments.rwu.edu/biology/seminar.htm>. Seminars are held in MNS 200 and begin at 4:00 PM (typically Wednesday), unless noted otherwise.

Professor Meeting: Students are to schedule at least one meeting with the professor before Thanksgiving Recess (Wednesday, November 26). Meetings lasting approximately 30 minutes may involve discussions about the class or any number of other topics. The objective of each meeting is to increase the communication between student and professor. By understanding student interests and ambitions, I, as professor, will be better prepared to design a curriculum that benefits both student and teacher. Students participating in one meeting have 5 points added to their final grade. Students who do not attend a meeting by Thanksgiving Recess do not receive the bonus points.

Lecture Attendance: Attendance will not be recorded throughout the semester for lecture, but I *strongly suggest* students come to class (see *Roger Williams University 2008-2009 Undergraduate Catalog*, p. 59). There is a tremendous amount of material covered in the course, and a student’s overall success in learning the material depends on their attendance. Daily quizzes may be administered if attendance drops below suitable levels as deemed by the professor.

Laboratory Time, Location, and Grade: *Biology I* has a required laboratory component (BIO 103L), of which there are nine sections. The laboratory portion of the course accounts for 30% of the final grade, and students *must* pass lab (lab average > 60%) in order to pass the course.

Academic Standards: Students enrolled in *Biology I* are expected to abide to the “Academic Integrity Undergraduate Pledge”. The definitions and penalties for violations of academic integrity apply to this course. (see *Roger Williams University 2008-2009 Undergraduate Catalog*, p. 57-59). Moreover, students agree that by taking this course all required written assignments may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of Turnitin.com service is subject to Terms and Conditions of Use posted on the Turnitin.com site.

Disabilities: If a student has a disability that qualifies under the Americans with Disabilities Act and requires accommodations, he/she should contact the Office of Academic Development, located in the University Library, for information on appropriate policies and procedures.

Student Health Statement: Some procedures and materials utilized in the laboratory may pose a health risk to certain individuals. If you suspect that your involvement in laboratory may compromise your health, consult Health Services before participating in any laboratory activities.

Evaluation and Grading Policy:

Evaluation	Points
Exam 1	100
Exam 2	100
Exam 3	100
Final exam	100
Seminar synopses (2)	100
Total Lecture Points	500

Grade contribution	Percent of final grade
Lecture	70%
Laboratory	30%

Percentage	Final Grade
100-93	A
92-90	A-
89-87	B+
86-83	B
82-80	B-
79-77	C+
76-73	C
72-70	C-
69-67	D+
66-63	D
62-60	D-
< 60	F

LECTURE SCHEDULE

Date		Topic	Chapter Readings
27-Aug	Wed	Introduction to syllabus and What is science?	1
29-Aug	Fri	Theories, Taxonomy, and Tree of life	1
1-Sep	Mon	No class – Labor Day	-
3-Sep	Wed	Chemical context of life	2
5-Sep	Fri	Chemical context of life	2
8-Sep	Mon	Water	2
10-Sep	Wed	Water and Carbon	2
12-Sep	Fri	Macromolecules: Proteins and nucleic acids	3
15-Sep	Mon	Macromolecules: Proteins and nucleic acids	4
17-Sep	Wed	Macromolecules: Carbohydrates and lipids	5,6
19-Sep	Fri	Exam 1	-
22-Sep	Mon	Cell overview	7
24-Sep	Wed	Cell overview	7
26-Sep	Fri	Cell overview	7
29-Sep	Mon	Membrane structure and function	6
1-Oct	Wed	Membrane structure and function	6
3-Oct	Fri	Cell-cell interactions	8
6-Oct	Mon	Cell-cell interactions	8
8-Oct	Wed	Metabolism	3
10-Oct	Fri	Metabolism	3
13-Oct	Mon	No class – Columbus Day	-
14-Oct	Tues	Metabolism	3
15-Oct	Wed	Exam 2	-
17-Oct	Fri	Cellular respiration	9
20-Oct	Mon	Cellular respiration	9
22-Oct	Wed	Cellular respiration	9
24-Oct	Fri	Photosynthesis	10
27-Oct	Mon	Photosynthesis	10
29-Oct	Wed	Photosynthesis	10
31-Oct	Fri	Cell cycle	11
3-Nov	Mon	Cell cycle	11
5-Nov	Wed	Cell cycle	11
7-Nov	Fri	Exam 3	-

10-Nov	Mon	Meiosis and sexual life cycles	12
12-Nov	Wed	Meiosis and sexual life cycles	12
14-Nov	Fri	Molecular genetics	14-16
17-Nov	Mon	Molecular genetics	14-16
19-Nov	Wed	Molecular genetics	14-16
21-Nov	Fri	Mendelian genetics	13
24-Nov	Mon	Mendelian genetics	13
26/28-Nov	Wed/Fri	No class – Thanksgiving Recess	-
1-Dec	Mon	Evolution of populations	24,25
3-Dec	Wed	Evolution of populations	24,25
5-Dec	Fri	Evolution of populations	24,25
9-Dec	Tues	FINAL EXAM	Time: 4:00-6:00

Important Dates from the Academic Calendar, Fall Semester 2007:

- 27-Aug (Wed): All fall classes begin
- 2-Sep (Tues): Last day to add a course without instructor's permission
- 8-Sep (Mon): Last day to add a course with instructor's permission
- 15-Sep (Mon): Last day to drop a course without the W (withdrawal) grade
- 3-Oct (Fri): Warning Grades due in the Office of the Registrar
- 24-Oct (Fri): Last day to drop a course and receive the W (withdrawal) grade
- 5-Dec (Fri): Last day of classes