# BSC 2011 - Section 02 - Biological Science II - Fall 2004

Lecture: MWF 1:25 – 2:15, Fisher 275

Help Session: M 5:15 – 6:15 Conradi 228

Instructor:	Alice A. Winn
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<b>Office Hours</b>	: M 3:00 - 5:00, and by appointment

# **Teaching Assistants**:

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**Course Objectives**: BSC 2011 is the second semester of the introductory course sequence intended to provide a broad overview of biology to students interested in the many careers based on the life sciences. This semester we will cover genetics, development, evolution and ecology. At the end of the semester, I expect you to know;

- 1. The set of processes that allow a linear sequence of information contained in DNA to direct the development of a complex multicellular organism from a single cell.
- 2. The rules that govern the patterns by which traits are inherited by offspring from parents.
- 3. The mechanisms and processes that result in changes in populations of organisms over evolutionary time.
- How interactions among organisms and between organisms and their physical environment determine patterns of distribution and abundance of organisms on Earth.
   Prerequisite: BSC 2010

**Textbook**: <u>Biology</u>, 6th edition by Campbell and Reece. Regular, required reading assignments from the text are listed on the lecture calendar.

Attendance: You are very strongly encouraged to attend ALL lectures. If you must miss a lecture, it is your responsibility to get any information that you missed.

**Help sessions**: Weekly help sessions are available on Mondays from 5:15 - 6:15 in Conradi 228. These sessions are not required, but provide an opportunity to review material covered in lecture with myself, our TAs, and other students. The format will be interactive (not a rerun of the lectures), so come with questions and ideas.

**Tutoring:** Available in the Biology Study Center, 339 Conradi, from 9:00 am to 4:00 pm Monday through Thursday and 9:00 am to 3:30 pm on Friday.

<b>Our TAs</b> :	Eric Raab	Raab Fri. 11:05-12:00, Tues. and Thurs. 12:00-1:00			
	Nicole Stevens	Mon. and Wed. 2:3	0-4:00		
Grading:	Your grade will be based on 600 possible points distributed as follows:				
	Exam #1 (lectures 1 - 10)		100 points		
	Exam #2 (lectures 11 - 19)		100 points		
	Exam #3 (lectures 20 - 30)		100 points		
	Final Exam				
	(lectures 31 - 40)		100 points		
	Compreher	nsive	100 points		
	Best Four of F	ive quizzes (25 pt ea)	100 points		
	70% (420 points) i	s a guaranteed C-; 60%	(360 points) is a guaranteed D		
Exams:	<ul> <li>A grade of 90% (540 points) is a guaranteed A-; 80% (480 points) is a guaranteed B-; 70% (420 points) is a guaranteed C-; 60% (360 points) is a guaranteed D</li> <li>The four unit examinations and the scheduled final examination must be taken at the scheduled date and time. No exams will be available in advance of the scheduled date and time. Make-up examinations may be offered for an excused absence approved in advance, or for verifiable personal emergency or incapacitating illness. If a make-up is not offered, you will be assigned a grade for that examination equal to the average of</li> </ul>				
	exams. Students who miss a scheduled examination without prior approval or verifiable emergency will be assigned a grade of zero.				
Quizzes:	Students who miss be assigned a grad <b>make-up quizzes</b> . verifiable emergen	a scheduled quiz with e based on the average Students who miss a sc cy will be assigned a gr	prior approval or verifiable emergency will of the remaining quizzes; <b>there will be no</b> heduled quiz with no prior approval or rade of zero for that quiz.		

Lect	ure Date		Lecture Topic	Quiz	Reading
	I	Unit I: C	Gene Regulation, Animal Development, and Cellu	ılar Reprodı	uction
1	Aug 23	(M)	Intro: Gene Expression		Ch 17
2	Aug 25	(W)	Cell Differentiation		
3	Aug 27	(F)	Gene Regulation - Prokaryotes		pp. 347-351
4	Aug 30	(M)	Gene Regulation - Eukaryotes		Ch 19
5	Sept 1	(W)	Gametes and Fertilization		Ch 47
6	Sept 3	(F)	Early Development	Q1	Ch 47
	Sept 6	(M)	No Class – Labor Day		
7	Sept 8	(W)	Morphogenesis and Organogenesis		Ch 47
8	Sept 10	(F)	Determination and Induction		Ch 47
9	Sept 13	(M)	The Cell Cycle		Ch 12
10	Sept 15	(W)	Mitosis and Cytokinesis		Ch 12
	Sept 17	<b>(F)</b>	EXAM I		
		Unit II:	Mendelian Inheritance		
11	Sept 20	(M)	Meiosis		Ch 13
12	Sept 22	(W)	Mendel's Laws of Inheritance		Ch 14
13	Sept 24	(F)	Probability and Genetics		Ch 14
14	Sept 27	(M)	Dominance, Multiple Alleles		Ch 14
15	Sept 29	(W)	Multilocus Inheritance		Ch 14
16	Oct 1	(F)	Sex Determination and Sex Linkage	Q2	Ch 15
17	Oct 4	(M)	Linkage and Crossover		Ch 15
18	Oct 6	(W)	Gene Expression and Gene Interaction		Ch 15
19	Oct 8	(F)	Mutation		Ch 15
	Oct 11	(M)	EXAM II		
Unit III: Evolution					
20	Oct 13	(W)	Darwin and Evidence for Evolution		Ch 22
21	Oct 15	(F)	Introduction to Population Genetics		Ch 23
22	Oct 18	(M)	Mechanisms of Evolution		Ch 23
23	Oct 20	(W)	Natural Selection and Adaptation	Q3	Ch 23
24	Oct 22	(F)	Co-evolution: Plants and Pollinators		
25	Oct 25	(M)	Maintenance of Genetic Variation		Ch 23
26	Oct 27	(W)	variation among Populations	04	Ch 24
21	Uct 29	(F) (M)	Species Concepts	Q4	Ch 24
28 20	INOV I	$(\mathbf{M})$	Reproductive Isolation		Ch 24
29 20	INOV 3	(w) (E)	Speciation - Mechanisms and Patterns		Ch 24
50 26	INUV J	(F)			Cli

# Nov 8 (M) EXAM III

#### Unit IV: Populations, Ecology, and the Biosphere

31	Nov 10 (W)	Populations and Population Dynamics		Ch 52
32	Nov 12 (F)	Demography and Life History		Ch 52
33	Nov 15 (M)	Population Regulation		Ch 52
34	Nov 17 (W)	Species Interactions		Ch 52
35	Nov 19 (F)	The Niche		Ch 53
36	Nov 22 (M)	Community Structure	Q5	Ch 53
37	Nov 24(W)	Community Dynamics		Ch 53
	Nov 25 – 26	Thanksgiving Break		
38	Nov 29 (M)	Energy Flow and Nutrient Cycling		Ch 54
39	Dec 1 (W)	Climate and Biomes		Ch 50
40	Dec 3 (F)	Conservation Biology		Ch 55

### FINAL EXAMINATION – Monday Dec 6, 2004, 10:00am – noon in Fisher 275

Students are expected to understand and to uphold the Academic Honor Code published in the *Florida State University* General *Bulletin* and in the *Student Handbook*. The academic honor system of Florida State University is based on the premise that each student has the responsibility:

- 1. To uphold the highest standards of academic integrity in the student's own work.
- 2. To refuse to tolerate violations of academic integrity in the University community.
- 3. To foster a high sense of integrity and social responsibility on the part of the University community.

NOTE: A student violating the Honor Code in any assignment, quiz, or examination in BSC 2011 will receive a minimum penalty of a zero (0) for that exam, quiz or assignment, and may receive a grade of "F" for the course at the discretion of the instructor.

This document and all others produced for this course are available upon request in alternate formats for individuals with print-related disabilities. Contact Dr. Winn at 644-9833 for more information.