

This is a sample syllabus for BSC2011. Students should reference the section syllabus provided at the beginning of the semester for specifics regarding assignments and grade assignments.

**Biological Science II – BSC2011 – Section #**  
**SEMESTER**  
**Lecture Times & Location**  
**Optional Help/Discussion Time & Location**

**Instructor:**

(Insert name & contact information here)

**Office Hours:**

(Insert times & location here)

**Teaching Assistants:**

Teaching Assistants are available in the Biology Study Center (KING 1054).  
(insert TA names & e-mail addresses here)

**BSC 2011 COURSE DESCRIPTION:**

This is the second part of a two-semester introductory biology course designed for those interested in pursuing a career in life sciences. This course provides an overview of the processes underlying animal embryonic development, inheritance genetics, evolution and ecology. The diversity of knowledge gained in BSC 2011 will aid students' understanding in more advanced biology classes.

**BSC2011 COURSE OBJECTIVES:**

At the end of the semester, students will be able to:

- **Unit I:** identify and describe the set of processes that allow a linear sequence of information contained in DNA to direct the embryonic development of a complex multicellular eukaryotic organism from a single cell
- **Unit II:** explain the mechanisms that govern the patterns by which traits are inherited by offspring from parents and solve problems based on Mendelian inheritance
- **Unit III:** list types of evidence for evolution; describe and compare the various mechanisms that result in changes in populations of organisms over evolutionary time; contrast micro- and macroevolution; explain the Hardy-Weinberg principle and apply this to solve problems in population genetics; explain the role of reproductive isolation in speciation and the various means by which populations may become reproductively isolated; contrast allopatric and sympatric modes of speciation; and interpret phylogenetic trees
- **Unit IV:** describe interactions among organisms at different ecological levels; explain how interactions between organisms and their physical environment determine patterns of distribution and abundance of organisms on Earth; describe threats to earth's biodiversity; and recognize the importance of conserving biodiversity.

**The Liberal Studies for the 21st Century Program at Florida State University builds an educational foundation that will enable FSU graduates to thrive both intellectually and materially and to support themselves, their families, and their communities through a broad and critical engagement with the world in which they live and work. Liberal Studies thus offers a transformative experience.**

**This course has been approved for the Liberal Studies disciplinary requirement of Natural Science and thus is designed to help students become an effective interpreter of scientific results and a critical analyst of claims about the natural world. Therefore, at the end of the semester, students will also be able to:**

- 1. Pose questions or hypotheses based on scientific principles.*
- 2. Use appropriate scientific methods and evidence to evaluate claims or theoretical arguments about the natural world.*
- 3. Analyze and interpret research results using appropriate methods.*

**PLEASE NOTE: Three questions assessing these three competencies will be included in each of the four Unit Exams given throughout the semester.**

**COURSE WEB SITE:** Canvas (<https://canvas.fsu.edu/>). Students will find grades, lecture slide sets, handouts, "written" homework assignments & problem sets, study guides, practice exams & quizzes, answer keys, discussion articles, video/internet links, group-report info, & announcements posted in various folders on the course website. *Please refer to the course website and check your FSU e-mail frequently to receive updated information.*

**COURSE MATERIALS:**

**Biology, 11<sup>th</sup> Edition**, by Campbell and Reece (with Mastering Biology). This text is also used for Biological Science I (BSC 2010) and Eukaryotic Diversity (BSC3016). It is suggested for ZOO3141L (Animal Diversity Lab).

**Required Online Content:**

[www.masteringbiology.com](http://www.masteringbiology.com) Course ID: **XXXXXXXX**

This is an on-line learning software package developed by the publisher of your textbook with a vast array of useful resources tailored specifically to the material covered in the text. Among these resources are; videos, mp3 tutor sessions, study tools, self-quizzes, practice tests and an optional online version of the textbook itself (i.e., an “e-book”). You will be assigned ten Mastering Biology assignments throughout the semester. Directions for registering with Mastering Biology for this course are provided on Blackboard under “Course Info.

**i>Clickers:**

Students are required to purchase an i>Clicker polling device for this course. Please have your i>Clicker device purchased and registered (instructions on Blackboard) by the second week of class. Several i>Clicker questions will be used during every class meeting to assess your understanding and to monitor attendance for up to 2% extra-credit. I am sorry, but I cannot give you attendance credit if you have forgotten your device. **PLEASE BE AWARE:** Students caught operating more than his/her own “clicker” will forfeit their opportunity to earn any extra-credit for the entire semester. The same penalty will apply to the absent student(s) who permitted another student to operate their “clicker.” *Each offense will also be considered a violation of FSU’s Academic Honor Policy.*

**COURSE ASSIGNMENTS AND EVALUATION: (to be decided by each instructor)**

At a minimum, your grade will be based on points distributed as follows (*please note: a variable number of short in-class group assignments will also contribute points not listed below*):

10, 10-point Mastering Biology on-line assignments:	100 points
Seven written assignments:	125 points
Four in-class scheduled quizzes (Units I, II, III & IV):	100 points
Two group reports:	50 points
Unit I exam:	100 points
Unit I essay:	10 points
Unit II exam:	100 points
Unit II essay:	10 points
Unit III exam:	100 points
Unit III essay:	10 points
Unit IV exam & Cumulative final	<u>200 points</u>
<b>TOTAL (plus a variable # of in-class group-work points):</b>	<b>905 points</b>

Errors or discrepancies in a grade that you have received must be brought to the attention of the instructor within one week of your receiving the graded document.

The instructor reserves the right to curve exam grades in a fair and impartial manner when the exams are initially graded under the following conditions:

1. The average exam grade is low enough that the instructor feels the exam warrants a curve.
2. The curve will only serve to improve exam grades and not reduce them.

**UNEXCUSED ABSENCE POLICY: (to be decided by each instructor)**

Students who miss a scheduled quiz, examination or in-class assignment, or fail to hand in an assignment on time without prior approval or verifiable emergency or suitable documentation (e.g., doctor’s note) will be assigned a grade of zero.

**PARTICIPATION POINTS: (to be decided by each instructor)**

We will use several clicker questions during every class meeting to assess your understanding and to monitor attendance for up to 2% extra-credit. I am sorry, but I cannot give you participation credit if you have forgotten your device.

**FINAL COURSE LETTER GRADES** (a sample is shown below; final letter-grade designations will be left up to the individual instructor):

Exams and quizzes will account for ~##% of your final grade. (INSTRUCTOR ENTERS PERCENTAGE HERE)  
 Course averages will be calculated to the nearest 1/100 of a percentage point. Final course grades will include plus/minus options and **may** be curved to reflect the performance and effort of the class, but please do not count on a curve to get the grade you want. Prior to any curving:

92.50 - 100	<b>A</b>	72.50 - 76.49	<b>C</b>
89.50 - 92.49	<b>A-</b>	69.50 - 72.49	<b>C-</b>
86.50 - 89.49	<b>B+</b>	66.50 - 69.49	<b>D+</b>
82.50 - 86.49	<b>B</b>	62.50 - 66.49	<b>D</b>
79.50 - 82.49	<b>B-</b>	59.50 - 62.49	<b>D-</b>
76.50 - 79.49	<b>C+</b>	00.00 - 59.49	<b>F</b>

**COURSE SCHEDULE: (instructor inserts their own schedule here)**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>
<b>UNIT I: DNA, GENE REGULATION, &amp; ANIMAL DEVELOPMENT</b>		
<b>WEEK 1:</b>		
<b>Slide set I:</b>		
1/07	(Tu) Scientific Inquiry Review (Central Dogma) Genetic & Molecular Mechanisms in Development	Chapters 1, 5, 16, 17 Chapters 11, 18, 20
1/09	(Th) Continue with above.	
<b>WEEK 2:</b>		
<b>Slide set II:</b>		
1/14	(Tu) Animal Development (Fertilization & Cleavage)	Chapter 47
<b>Slide Set III:</b>		
1/16	(Th) Animal Development (Gastrulation & Neurulation)	Chapter 47
<b>Assignment 1 (library search) due by 5 pm on 1/17 (Fri.) in box outside Dr. T's office (KING 3021)</b>		
<b>Mastering Biology Assignment 1 due Sat. 1/18 @ 11:59 PM</b>		
<b>WEEK 3:</b>		
1/21	(Tu) Continue with above.	
<b>Slide Set IV:</b>		
1/23	(Th) Morphogenic Mechanisms & Pattern Formation	Chapter 47, 18
<b>Quiz 1 at the START of class on Tues., 1/21</b>		
<b>Mastering Biology Assignment 2 due Sat. 1/25 @ 11:59 PM</b>		
<b>WEEK 4:</b>		
<b>Slide set V:</b>		
1/28	(Tu) Developmental Genes, Evolutionary Developmental Biology ("EvoDevo")	Chapters 18, 21, 25
1/30	(Th) Catching up.	
<b>GROUP REPORT I due by 5 pm on 1/31 (Fri.) in box outside Dr. T's office (KING 3021)</b>		
<b>Mastering Biology Assignment 3 due Sat. 2/01 @ 11:59 PM</b>		
<b>WEEK 5:</b>		
<b>Exam I: Tuesday 2/04 (Slide Sets I-V, MB Assignments 1-3)</b>		
<b>UNIT II: MENDELIAN INHERITANCE</b>		
<b>Slide set VI:</b>		
2/06	(Th) Cell Division: Mitosis & Meiosis	Chapters 12 & 13
<b>Assignment 2 (4-paragraph write-up) due by 5 pm on 2/07 (Fri.) in box outside Dr. T's office (KING 3021)</b>		

**WEEK 6:**

**Slide Set VII:**

2/11 (Tu) The Cell Cycle; Cancer Chapters 11, 18

**Slide Set VIII:**

2/13 (Th) Mendel's Laws of Inheritance; Probability & Genetics; Dominance; Mono- & Dihybrid Crosses Chapter 14

**Assignment 3 (cell division) due by 5 pm on 2/14 (Fri.) in box outside Dr. T's office (KING 3021)**

**Mastering Biology Assignment 4 due Sat. 2/15 @ 11:59 PM**

**WEEK 7:**

2/18 (Tu) Continue with Slide Set VIII

**Slide Set IX:**

2/20 (Th) Exceptions to Mendel's Findings Chapter 14

**Quiz 2 at the START of class on Tues., 2/18**

**Assignment 4 (Genetics Problem Set I) due by 5 pm on 2/21 (Fri.) in box outside Dr. T's office (KING 3021)**

**Mastering Biology Assignment 5 due Sat. 2/22 @ 11:59 PM**

**WEEK 8:**

**Mastering Biology Assignment 6 due Sat. 10/20 @ 11:59 PM**

**Slide Set X:**

2/25 (Tu) Human Genetics: Pedigrees & Genetic Disorders Chapters 14, 15

Human Disorders Document

2/27 (Th) Catching up.

**Assignment 5 (Genetics Problem Set II) due at the START of class on Thurs., 2/27.**

**Mastering Biology Assignment 6 due Sat. 3/01 @ 11:59 PM**

**WEEK 9:**

**Exam II: Tuesday 3/04 (Slide Sets VI-X, MB Assignments 4-6, "Written" Assignments 3, 4 and 5)**

**UNIT III: POPULATION GENETICS & EVOLUTION**

**Slide set XI:**

3/06 (Th) History of Evolutionary Thought, Darwinian Model, Evidence for Evolution Chapters 1, 22

**WEEK 10: NO CLASSES – SPRING BREAK (MARCH 10-14)**

**WEEK 11:**

3/18 (Tu) Continue with Slide Set XI

**Slide Set XII:**

3/20 (Th) Population Genetics (The Hardy-Weinberg Theorem) Chapter 23  
Mechanisms of Evolution

**Mastering Biology Assignment 7 due Sat. 3/22 @ 11:59 PM**

**WEEK 12:**

3/25 (Tu) Continue with Slide Set XII Chapter 23  
(Hardy-Weinberg; Mechanisms of Evolution)

**Slide Set XIII:**

3/27 (Th) Natural Selection & Adaptation; Sexual Selection Chapter 23

**Quiz 3 at the START of class on Tues., 3/25**

**Assignment 6 (Population Genetics Problems) due by 5 pm on 3/28 (Fri.) in box outside Dr. T's office (KING 3021)**

**Mastering Biology Assignment 8 due Sat. 3/29 @ 11:59 PM**

**WEEK 13:**

**Slide set XIV:**

4/01 (Tu) Species Concepts and Reproductive Isolation; Speciation Chapter 24  
4/03 (Th) Catching up

**Extra-Credit Mastering Biology Assignment (Speciation) due Sat. 4/05 @ 11:59 PM**

**WEEK 14:**

**Exam III: Tuesday 4/08 (Slide Sets XI-XIV, MB Assignments 7, 8 & Extra-Credit)**

**UNIT IV: ECOLOGY**

**Slide Set XV:**

4/10 (Th) Introduction to Ecology; Demography; Population Growth Chapter 52, 53

**Assignment 7 (4-paragraph write-up) due by 5 pm on 4/11 (Fri.) in box outside Dr. T's office (KING 3021)**

**WEEK 15:**

**Slide set XVI:**

4/15 (Tu) Species Interactions Chapter 54

**Slide set XVII:**

4/17 (Th) Community Structure & Dynamics Chapter 54

**Mastering Biology Assignment 9 due Sat. 4/19 @ 11:59 PM**

**WEEK 16:**

**Slide Set XVIII:**

4/22 (Tu) Conservation Biology Chapter 56

4/24 (Th) Catching up

**Quiz 4 at the START of class on Tues., 4/22**

**GROUP REPORT II due by 5 pm on 4/25 (Fri.) in box outside Dr. T's office (KING 3021)**

**Mastering Biology Assignment 10 due Sat. 4/26 @ 11:59 PM**

**May 2nd (Friday)**

**FINAL EXAM (Moore 104)**

**3:00 – 5:00 pm**

PLEASE NOTE: The final exam will have two parts worth a combined total of 200 points.

Part I of the final is a Unit IV exam (slide sets XV-XVIII, "MB" 9 & 10)

Part II of the final is a comprehensive exam (Units I, II, III: slide sets I-XIV, MB 1-8 & EC)

**UNIVERSITY ATTENDANCE POLICY:**

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

**ACADEMIC HONOR POLICY:**

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>)

**AMERICANS WITH DISABILITIES ACT:**

Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. Please note that instructors are not allowed to provide classroom accommodation to

a student until appropriate verification from the Student Disability Resource Center has been provided. This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the: Student Disability Resource Center 874 Traditions Way 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) [sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu) <http://www.disabilitycenter.fsu.edu>

**FREE TUTORING FROM FSU (in addition to tutors located in the Biology Study Center in KING 1054):**

On-campus tutoring and writing assistance is available for many courses at FSU. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of on-campus tutoring options at <http://ace.fsu.edu/tutoring> or contact [tutor@fsu.edu](mailto:tutor@fsu.edu). High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

**SEXUAL HARASMENT POLICY:**

It is the policy of the University that its employees and students neither commit nor condone sexual harassment in any form. [http://registrar.fsu.edu/bulletin/grad/info/university\\_notices.htm](http://registrar.fsu.edu/bulletin/grad/info/university_notices.htm)

**STUDENT ELIGIBILITY FOR AN INCOMPLETE GRADE:**

Incomplete grades will not be assigned except in the case of exceptional unforeseen circumstances as determined by the instructor.

**SYLLABUS CHANGE POLICY:**

Except for changes that substantially affect implementation of the evaluation (grading) statement this syllabus is a guide for the course and is subject to change with advance notice.