FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	BSC 2011C
COURSE TITLE:	Principles of Biology II
PREREQUISITE(S):	BSC 2010C
COREQUISITE(S):	None
CREDIT HOURS:	4
CONTACT HOURS/WEEK:	5
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	2
Other _____:	
FACULTY WORKLOAD POINTS:	4.4
STANDARDIZED CLASS SIZE ALLOCATION:	24

CATALOG COURSE DESCRIPTION:

This course, a continuation of Principles of Biology I and recommended for science students transferring to four-year institutions, Course material emphasizes survey of the kingdoms, evolution and selected ecological topics and includes a required laboratory experience to reinforce subject matter.

SUGGESTED TEXT(S):

Campbell: Biology, latest edition, Benjamin/Cummings Publishing.

Johnson: Biology, 2nd edition, W.C. Brown Publishers.

Villee, Solomon and Davis: Biology, Saunders College Publishing Company. Latest edition

SUGGESTED TEXT(S): (Continued)	Biology. Solomon, Berg and Martin, 6th ed., Brooks/Cole Publishers Biology Laboratory Manual, Byres, Lloyd and Miller, 2nd ed., Pearson Publishing PhotoAtlas, Van De Graaff and Crawely. Encounters with Life: Lab Manual, Hans F.E. Watchmeister and Larry J. Scott. 6th ed., Morton Publishers.
IMPLEMENTATION DATE:	November 14, 1987
REVIEW OR MODIFICATION DATE:	Fall Term, 2002 (20031) Fall Term 2006, (20071) Fall Term, 2008 (20091) – Outline Review 2007

COURSE TOPICS	CONTACT HOURS PER TOPIC
I. Population Genetics	5 Lecture
A. The Species Concept	
B. The Hardy-Weinberg Law	
C. Structure of Populations	
D. Genetic Drift	
E. Mutations	
F. Gene Flow	
G. The Role of Natural Selection	
II. Taxonomy and Phylogeny	2 Lecture 2 Lab
A. The Goals of Classification	
B. Taxonomic Hierarchies	
C. How to Use Taxonomic Keys	
III. Viruses	2 Lecture
A. Classification	
B. Viral Anatomy	
C. "Life" Cycle	
D. Viral Diseases of Plants and Animals	
IV. Kingdoms Bacteria and Archaea (Prokaryotes)	2 Lecture 2 Lab
A. Classification	
B. Life Cycles	
C. Adaptations	
D. Economic Importance	
V. Kingdom Protista	3 Lecture 2 Lab
A. Classification	
B. Life Cycles	
C. Adaptations	
D. Economic Importance	
VI. Kingdom Fungi	2 Lecture 2 Lab
A. Classification	
B. Life Cycles	
C. Adaptations	
D. Economic Importance	

COURSE TOPICS (continued)	CONTACT HOURS PER TOPIC
VII. Kingdom Plantae A. Classification B. Life Cycles C. Adaptations D. Economic Importance	8 Lecture 8 Lab
VIII. Kingdom Animalia A. Classification B. Life Cycles C. Adaptations D. Economic Importance	12 Lecture 8 Lab
IX. Plant and Animal Ecology A. Population Dynamics B. Interaction Among Populations C. Biosphere D. Ecosystems	4 Lecture
X. Other	**5 Lecture** 6 Lab
Total	45 Lecture/30 Lab

Florida State College
At Jacksonville

Course Learning Outcomes & Assessment
For All College Credit Courses

NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1

COURSE PREFIX AND NUMBER: **BSC2011C**

SEMESTER CREDIT HOURS: **4**

COURSE TITLE: **Principles of Biology II**

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

- ☐ **AA Elective**
- ☐ **AS Required Professional Course**
- ☐ **College Prep**
- ☐ **AS Professional Elective**
- ☐ **AAS Required Professional Course**
- ☐ **Technical Certificate**
- ☐ **Other** _____
- ☒ **General Education: (For General Education courses, you must also complete Section 3 and Section 7)**

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

- ☐ **Communications**
- ☐ **Social & Behavioral Sciences**
- ☐ **Mathematics**
- ☒ **Natural Sciences**
- ☐ **Humanities**

Section 4

INTELLECTUAL COMPETENCIES:

- ☒ **Reading**
- ☒ **Speaking**
- ☒ **Critical Analysis**
- ☒ **Quantitative Skills**
- ☒ **Scientific Method of Inquiry**
- ☒ **Writing**
- ☒ **Listening**
- ☒ **Information Literacy**
- ☒ **Ethical Judgment**
- ☒ **Working Collaboratively**

Section 5

	LEARNING OUTCOMES	METHOD OF ASSESSMENT
•	Explain and apply major concepts in population genetics, taxonomy and phylogeny and organism systematics and evolution.	Written tests, reports and/or use of equipment to demonstrate student competency in field.
•	Demonstrate knowledge of scientific method.	Formulate problem, make observations, derive and test hypothesis and make conclusions.
•	Communicate scientific ideas through oral or written assignments.	Written reports and/or oral presentations demonstrate ability to communicate scientific ideas.
•	Interpret scientific models such as formulas, graphs, tables and schematics, draw inferences from them and recognize their limitations.	Written reports of lab experiments and/or written tests demonstrate student competency in the application of scientific knowledge.
•	Demonstrate problem solving methods in situations that are encountered outside of the classroom.	Students use demonstrations, group discussions, written tests, laboratory reports, research projects and/or field experiences to illustrate competence in recognizing and evaluating various scientific processes.
•	Demonstrate proper laboratory technique including safety in the use and care of laboratory equipment and materials.	Results from laboratory work and experiments demonstrate student competency in laboratory technique.
•	Dissection and examination of a variety of invertebrates and vertebrates for example: Ascaris earthworm, clam, crayfish, starfish, shark, frog, fetal pig.	Lab Exam

Section 6

Name of Person Completing This Form: Carroll Mann, David Byres Date: 11/12/07

SECTION 7 MUST BE COMPLETED FOR ALL GENERAL EDUCATION COURSES ONLY (exclude AA electives)

Section 7 KNOWLEDGE	*Primary*	*Secondary*	*N/A*	VALUE	*Primary*	*Secondary*	*N/A*
A. Global and Historical Knowledge & Understanding				Intellectual honesty	☒	☐	☐
• Comprehends a general knowledge of the nature, origins and contributions of major civilizations	☐	☒	☐	Curiosity and openness to new ideas	☒	☐	☐
• Comprehends the workings and interrelations of personal, business and government economies	☐	☐	☒	Recognition of one's own creative potential	☒	☐	☐
• Comprehends political, social and economic systems and their effects upon society	☐	☒	☐	Acceptance of and respect for differences among people and cultures	☒	☐	☐
B. Cultural and Aesthetic Knowledge and Understanding							
• Comprehends the contributions of the arts and humanities to the human experience on a personal, national or global level	☐	☐	☒	Civic Engagement	☐	☒	☐
• Comprehends the historical development of the arts and sciences	☐	☒	☐	Lifelong Learning	☒	☐	☐
• Comprehends religious and cultural systems and their effects upon society	☐	☒	☐				
C. Human Awareness and Understanding							
• Comprehends the dynamics of human behavior and the process of increasing self-awareness, growth and development	☒	☐	☐				
• Comprehends the stages of human development and the dynamics of human relationships in diverse cultures	☐	☒	☐				
• Comprehends the factors that promote physical, mental and social well-being	☐	☒	☐				
D. Mathematics, Science and Technology							
• Comprehends the basic concepts and investigative processes of the natural sciences	☒	☐	☐				
• Comprehends the breadth, significance and development of the mathematical sciences	☒	☐	☐				
• Comprehends the ways science and technology have shaped and continue to reshape human cultures and the environment	☒	☐	☐				

Section 8

Name of Person Completing This Form: Carroll Mann, David Byres Date: 11/12/07