FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	BOT 1010C
COURSE TITLE:	Botany
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	4
CONTACT HOURS/WEEK:	6
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	3
Other _____:	
FACULTY WORKLOAD POINTS:	5.1
STANDARDIZED CLASS SIZE ALLOCATION:	24

CATALOG COURSE DESCRIPTION:

An evolutionary survey of the plant kingdom, this course emphasizes the principles which are applicable to all forms of plant life.

SUGGESTED TEXT(S):	Introduction to Botany. Stern Biology of Plants, Raven, Evert & Curtis, W. H. Freeman and Company Publishers. Latest edition.
IMPLEMENTATION DATE:	November 14, 1987
REVIEW OR MODIFICATION DATE:	Fall Term, 2002 (20031) Spring 2006, (20071)

COURSE TOPICS		CONTACT HOURS PER TOPIC
I.	Introduction and Class Policy	3
	A. History of Botany B. Origin of Life	
II.	Cell Structure	2
	A. Prokaryotic and Eukaryotic Cells B. Organelles of Eukaryotic Cells	
III.	Cell Chemistry	4
	A. Chemical Components of Cells B. Photosynthesis C. Respiration	
IV.	Cell Division	4
	A. Mitotic Cell Division B. Meiotic Cell Division	
V.	Plant Cell Types and Tissues	2
VI.	Vascular Plant Body	4
	A. Roots and Soil B. Stems C. Leaves	
VII.	Physiology of Vascular Plants	4
	A. Transportation of Materials in Plants B. Growth Regulation and Growth Responses	
VIII.	Introduction to Taxonomy	1
IX.	Prokaryotes	2
	A. Bacteria and Blue-Green Algae B. Archnea	

COURSE TOPICS (CONTINUED)		CONTACT HOURS PER TOPIC
X.	Kingdom Fungi	3
	A. Zygomycota B. Ascomycota and Lichens C. Basidiomycota D. Dueteromycota	
XI.	Non-Photosynthetic Protistans	1
XII.	Photosynthetic Protistans	4
XIII.	Bryophytes	1
	A. Liverworts B. Hornworts C. Mosses	
XIV.	Lower Vascular Plants	2
	A. Ferns B. Horsetails C. Lycopods and Spike Mosses D. Whisk Fern	
XV.	Gymnosperms	4
	A. Cycads B. Ginkgo C. Gnetum and Ephedra D. Conifers	
XVI.	Angiosperms	4
	A. Dicots – Eudicots B. Monocots C. Magnoliids	

LABORATORY

I.	Introduction to Microscopy	3
II.	Cell Study	3
III.	Cell Division	3
IV.	Roots, stems, leaves	3
V.	Photosynthesis	3
VI.	Prokaryotes	3
VII.	Fungi	3
VIII.	Protista I	3
IX.	Protista II	3
X.	Bryophytes	3
XI.	Ferns and Fern Allies	3
XII.	Conifers	3
XIII.	Flowering Plants	3

Florida State College
At Jacksonville

General Education Requirements
Categories & Courses Review Checksheet

Course Prefix and Number: BOT 1010C	Semester Credit Hours: 4
Course Title: Botany	

Discipline Area for the Course:

□ **Communication** □ **Mathematics** □ **Social & Behavioral Sciences**
□ **Humanities & Visual/Performing Arts** **X** **Natural Sciences** □ **Other-Designated Option**

INTELLECTUAL COMPETENCIES:

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

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

Name of Person Completing This Form: David Byres

Signature: _____ Date: 3/4/05

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At Jacksonville

General Education Review Checksheet
and Learning Outcomes

Course Prefix and Number: **BOT 1010C**	Semester Credit Hours: **4**
Course Title: **Botany**	

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☐ **Communication**	☐ **Mathematics**	☐ **Social & Behavioral Sciences**
☐ **Humanities & Visual/Performing Arts**	☒ **Natural Sciences**	☐ **Other-Designated Option**

INTELLECTUAL COMPETENCIES:

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

	Learning Outcomes	**Method Of Assessment**
1	Explain and apply major concepts in botany including taxonomy, life cycles, evolution, organ systems and phylogenetic relationships.	Written tests, reports and/or use of equipment to demonstrate student competency in field.
2	Demonstrate knowledge of scientific method.	Formulate problem, make observations, derive and test hypothesis and make conclusions.
3	Communicate scientific ideas through oral or written assignments.	Written reports and/or oral presentations demonstrate ability to communicate scientific ideas.
4	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.
5	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.
6	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.

Name of Person Completing This Form: David Byres

Signature: _____ Date: 3/4/05