

## Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: BOT 212 Botany II (4CR)

Prerequisites: BIOL 120 or instructor approval

Course Description: Diversity of plants, their classification, anatomy, physiology, and ecology.

Includes a general overview of fungi and algae. Plant cells and tissues, photosynthesis, translocation and transpiration, root/stem/leaf structure and function, secondary growth, growth and development, flowers/fruits/seeds, survey of Kingdom Monera/Protista/Fungi/Plantae, viruses, prions, ethnobotany

Course Objectives: Demonstrate an understanding and proficiency with the following concepts:

1. structure and function of vascular plants, particularly Coniferophyta & Anthophyta (Goal 7)
2. diversity of plants and plant-like organisms (Goal 7)
3. the ecology and evolution of plant and plant-like organisms (Goal 7)
4. the significance of these organisms to human kind (Goal 7)

Instructor: Lura

Office: NSC 114

Office Hours: MWF 1:00-2:00

Phone: (701) 228-5472

Email: charles.lura@dakotacollege.edu

Lecture/Lab Schedule: Spring semester

Textbook(s): Raven, P.H., R.F. Evert, and S.E. Eichhorn. 2005. Biology of Plants. W.H. Freeman and Worth Publishers. 7<sup>th</sup> Ed.

Lura, C.L. 2014. Botany 212 Lab Manual

Course Requirements:	4 Hour Exams @ 100 pts. ea.	400 pts.
	Lab quizzes	130 pts
	Lecture quizzes, assignments, etc.	170 pts
	Lab final exam	<u>100 pts</u>
	<b>TOTAL POINTS:</b>	<b>800</b>

A = 100-90%

B = 89-80%

C = 79-70%

D = 69-60%

F = below 60%

**Tentative Course Outline:**

***BOTANY 212 TENTATIVE SYLLABUS***  
**SPRING 2014**

<b>Date</b>	<b>Topic</b>	<b>Reading Assign.</b>
Jan 15-17	Introduction to plant cell chemistry, structure, function	Chapter 1,2,3
Jan 20-24	<b>Monday January 20, Martin Luther King Day</b> Photosynthesis <b>Lab:</b> Plant Cell Structure and Function	7
Jan 27-30	Plant cells and tissues, Translocation & Transpiration <b>Lab:</b> Primary Tissues of Stems and Roots	23,30
Feb 3-7	Roots, Stems, Leaves <b>FIRST HOUR EXAM, FRIDAY FEBRUARY 7</b> <b>Lab:</b> Leaf Structure and Function	24,25
Feb 10-14	Secondary Growth, Growth and Development <b>Lab:</b> Secondary Growth and Wood Anatomy	26,27,28
Feb 17-21	<b>Monday February 17, President's Day</b> Reproduction, Flowers, Fruits, Seeds <b>Lab:</b> Plant Form, Function, Diversity "Greenhouse Lab"	19
Feb 24-28	Early development of the Plant Body <b>SECOND HOUR EXAM, FRIDAY FEBRUARY 28</b> <b>Lab:</b> Flowers, Fruits, and Seeds	22
Mar 3-7	Domain Archaea & Bacteria, Viruses, Viroids, Prions <b>Lab:</b> Domain Bacteria	13
Mar 10-14	Kingdom Fungi: Chytridiomycota, Zygomycota, Ascomycota <b>Lab:</b> Fungi I: Ascomycota and Lichens	14
<b>Mar 17-21</b>	<b>SPRING BREAK</b>	
Mar 24-28	Basidiomycota, Deuteromycetes <b>Lab:</b> Fungi II: Basidiomycota, Chytridiomycota, Zygomycota	14
Mar 31-Apr 4	Deuteromycetes continued, review <b>THIRD HOUR EXAM, FRIDAY APRIL 4</b> <b>Lab:</b> Protista I: Myxomycota, Euglenophyta, Rhodophyta, Dinophyta, Oomycota, Chrysophyta	14
Apr 7-11	Kingdom Protista: Myxomycota, Oomycota, Euglenophyta, Rhodophyta, Dinophyta, Chrysophyta, Bacillariophyta <b>Lab:</b> Protista II: Bacillariophyta, Phaeophyta, Chlorophyta	15
Apr 14-18	Phaeophyta, Chlorophyta, Kingdom Plantae: Bryophyta, Hepatophyta <b>Friday April 18-Easter Break</b> <b>Lab:</b> Plantae I: Hepatophyta, Bryophyta, Psilotophyta, Lycophyta	15,16,17

Apr 21-25	<b>Monday April 21-Easter Break</b> Psilotophyta, Lycophyta, Sphenophyta, Pterophyta Cycadophyta, Ginkgophyta <b>Lab:</b> Plantae II: Sphenophyta and Pterophyta	17,18
Apr 28-May 2	Gnetophyta, Coniferophyta, Anthophyta <b>Lab:</b> Plantae III: Cycadophyta, Coniferophyta, Anthophyta	18,19,20
May 5-9	Biomes, Plants & Society <b>Lab: LAB FINAL</b>	31,32
<b>FINAL EXAM FRIDAY MAY 9</b>		

#### General Education Goals/Objectives:

Goal 1: Explains the interrelationships between humans and their environment and the role of science in their lives

Goal 2: Demonstrates knowledge and application of technology

Relationship to Campus Theme: Class presentation/discussion on how DNA analysis is changing our approach to classification

Classroom Policies: Regular attendance and participation in lab and lecture is expected.  
All make-up exams will include a significant essay/short answer component and must be made up within one week of the students return to class unless prior arrangements have been made.

Academic Integrity: Cheating on a test, quiz, or other assessment results in zero points for the assessment.

Disabilities and Special Needs: Any accommodations due to a learning disability must come through the MSU-B Learning Center. If you have a diagnosed learning disability, you need to contact the Learning Center in Thatcher 1104 or phone (701) 228-5477.