

# BIOL 154—Introduction to Botany (4 credits)

Alexey Shipunov

Fall 2012



## SYLLABUS

**Class Dates** : August 22 to December 7, 2012

### Course Description and Objectives :

This course will introduce the principles of plant structure, function, and diversity as evolved over time. You will gain a better understanding of plant life, diversity and distribution on this planet and learn to appreciate plants as elaborate and beautiful organisms, which are a significant part of our culture. You will learn about historical experiments and persons, who had a significant impact on the field and get introduced to current findings. In the labs you will observe plant structure and gain experience on how to collect and analyze experimental data.

### Central Concepts :

Plant structure and functions; photosynthesis; life cycles and evolutionary diversity of plants

**Instructor** : Dr. Alexey Shipunov

**Office** : Moore 229

**Office Hours** : Mondays, Wednesdays and Fridays, 11 am to 12 am

**Phone** : 858-3116

**E-mail** : alexey.shipunov@minotstateu.edu

**Lectures** : Mondays, Wednesdays and Fridays, 10:00 am to 10:50 am, Moore 16

**Textbook** : Either of these textbooks may be used:

1. "Stern's Introductory Plant Biology" (Bidlack & Jansky., 12 ed., McGraw-Hill)
2. "Plant Biology" (Rost et al., 2 ed., Thomson Brooks/Cole)
3. "Raven Biology of Plants" (Raven et al., W.H. Freeman, 8 ed. 2013)

**Web site** : [http://ashipunov.info/shipunov/school/biol\\_154/](http://ashipunov.info/shipunov/school/biol_154/)

Please note that lecture slides from the Web site are NOT containing all information which is given on lectures.

**Laboratories** : Monday and Wednesday 3 to 4:50 pm, Moore 210 (please check the time for your section).

some labs will be outdoor.

### Grading :

Four exams are given during the semester. Only three best exams contribute to the final grade. Missed exams count zero points. There are **no make-up** exams.

There are five legitimate reasons for absence: (1) emergency situations, (2) attested medical conditions, (3) military duty, (4) participation in MSU sports events, and (5) dependent sick leave. Absence from exams or laboratories needs to be announced to the instructor in advance. I strongly recommend attending lectures regularly. Lecture contents will not exactly follow the textbook and additional information will be supplied.

Receiving zero points for more than one laboratory results in a failed course. Grading of laboratories is based on reports and/or drawings. Written reports and/or drawings are prepared and finished during laboratory sessions and passed to the instructor right after the particular laboratory session.

In addition, at the end of every lecture I will give one short test question to answer.

A total of  $\approx 600$  points (the actual total could be different) can be earned. Points will be distributed as follows (values may vary):

**Lecture tests** :  $\approx 60$  points (1–3 points per question)

**Three best exams** :  $\approx 300$  points (exam distribution curves will be graded)

**Laboratories** : 240 points (20 points per lab)

**Letter Grades** :  $A \geq 90\%$ ,  $B \geq 80\%$ ,  $C \geq 70\%$ ,  $D \geq 60\%$ ,  $F < 60\%$  of a total.

**Academic Honesty** : Honesty and integrity are central to academic life at Minot State University. Cheating may affect the student in accordance with the grading policy: a minimum of one letter grade will be deducted from the grade for academic dishonesty / plagiarism.

**Disability Needs** : In coordination with Disability Support services, reasonable accommodations will be provided for qualified students with disabilities. Please contact the instructor during the first week of class to make arrangements. Additional information is available from MSU Disability Support Services.

**Tentative Course Schedule** :

Week 1	Aug 22, 24	Botany as a science, importance of plants; no lab
Week 2	Aug 27, 29, 31	Plant cells, organelles and tissues; Lab 1
Week 3	Sep 5	Plant tissues; no lab
"		<b>1st exam: September 7</b>
Week 4	Sep 10, 12, 14	Roots; Lab 2
Week 5	Sep 17, 19, 21	Stems; Lab 3
Week 6	Sep 24, 26, 28	Leaves; Lab 4
Week 7	Oct 1	Leaves; no lab
"		<b>2nd exam: October 5</b>
Week 8	Oct 8, 10, 12	Photosynthesis; Lab 5
Week 9	Oct 15, 17, 19	Water transport; Lab 6
Week 10	Oct 22, 24, 26	Mitosis and meiosis; Lab 7
Week 11	Oct 29, 31	Life cycles; Lab 8
"		<b>3rd exam: November 2</b>
Week 12	Nov 5, 7, 9	Taxonomy; Lab 9
Week 13	Nov 14, 16	Mosses and ferns; no lab
Week 14	Nov 19, 21	Seed and seed plants; Lab 10
Week 15	Nov 26, 28, 30	Flower and flowering plants, fruit; Lab 11
Week 16	Dec 3, 5, 7	Grasses, legumes and asters; Lab 12
		<b>4th Exam: Tuesday December 11, 10:00–10:50 am, Moore 16</b>

*Please note that the schedule is a subject to change. Only exam dates are fixed.*