

Introduction to Botany. Lecture 1

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August 22, 2012

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Course in general

Description

Course description

This course will introduce the principles of plant

- structure,
- function,
- 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.

Instructor

- Dr. Alexey Shipunov
- Office: Moore 229
- Office Hours: Mondays, Wednesdays and Fridays, 11 am to 12 am
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Lectures Mondays, Wednesdays and Fridays, 10:00 am to 10:50 am, Moore 16

Laboratories Mondays and Wednesdays, Moore 210

Web site

© Shipunov, A. Introduction to Botany [Electronic resource]. 2010—onwards.
Mode of access: http://herba.msu.ru/shipunov/school/biol_154/index.htm

BIOL 154: Introduction to Botany



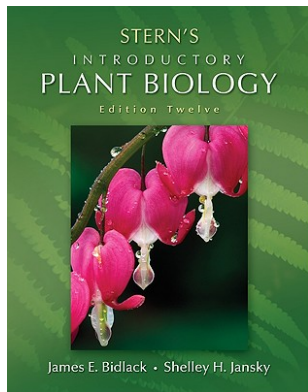
Course materials:

- [Syllabus](#) (PDF, 0.15 Mb)—**updated 08/21/2012!**

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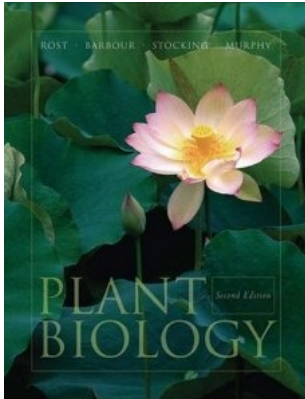
http://ashipunov.info/shipunov/school/biol_154

Main textbook



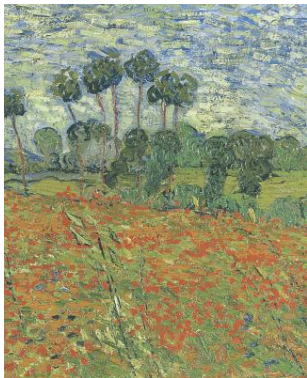
Textbook 1 Stern's Introductory Plant Biology (Bidlack & Jansky, 12 ed., McGraw-Hill)

Secondary textbook



Textbook 2 Plant Biology (Rost et al., 2 ed., Thomson Brooks/Cole)

Third textbook



Textbook 3 Raven Biology of
Plants (Raven et al., 8
ed. 2013,
W.H.Freeman)

Wikibook "Botany"

The screenshot shows the Wikibooks interface for the book "Botany: Study Guide to the Science of Botany". At the top right, there are links for "Create account" and "Log in". Below these are navigation tabs for "Book", "Discussion", "Read", "Edit", and "View history", along with a search box. The main title "Botany" is prominently displayed, followed by the subtitle "Study Guide to the Science of Botany" and the tagline "A Free Online Textbook". A "Contributors" section is visible. A callout box highlights that a "printable version" of the book is available, with an "edit it" link. A "Table of contents" section lists the chapters: "Chapter 1 ~ An Introduction to Botany", "Chapter 2 ~ Plant cells", and "Chapter 3 ~ Plant tissues". A photograph of a natural landscape with trees and mountains is included, with a caption: "Plants tend to dominate both natural and rural landscapes in all but the most rigorous of environments". A left sidebar contains various navigation links such as "Main Page", "Help", "Browse", "Cookbook", "Wikijunior", "Featured books", "Recent changes", "Donations", "Random book", "Community", "Reading room", "Community portal", "Bulletin Board", "Help out!", "Policies and guidelines", "Contact us", "Toolbox", "In other languages", "Sister projects", and "Print/export".

<http://en.wikibooks.org/wiki/Botany>



Course in general

Grading

Exams

- 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.

Labs

- This is a **laboratory course**, meaning that 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.
- Some labs will be outdoor

Absence

There are five legitimate reasons for absence:

- 1 emergency situations,
- 2 attested medical conditions
- 3 military duty,
- 4 participation in MSU sports events,
- 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.

Final questions

- At the end of every lecture I will give one short test question to answer.
- Each question will give from 1 to 3 points.

Points

A total of 600 points can be earned and are distributed as follows:

Lecture tests : 60 points (1–3 points per question)

Three best exams : 300 points

Laboratories : 240 points (20 points per lab)

Grading points may vary between exams, tests, and labs.

Letter grades

- $A \geq 90\%$
- $B \geq 80\%$
- $C \geq 70\%$
- $D \geq 60\%$
- $F < 60\%$

A minimum of one letter grade will be deducted from the grade for academic dishonesty / plagiarism.

Course in general

Course schedule

Tentative course sequence

- Plant cells
- Plant tissues
- Plant organs
- Plant metabolism
- Plant reproduction
- Plant diversity

Plants: definition and importance

Definiton

Definition of plants

What is a plant?

Plants₁ and plants₂

- Plants₁ are all organisms capable of oxygenic photosynthesis
- Plants₂ are “normal” plants, usually with stem and leaves (better definition will follow)

Plants: definition and importance

Importance

Importance of plants

Why are plants important?

Final question (1 point)

Final question (1 point)

Why are plants important?

Summary

- BIOL 154: download the syllabus from the Web site
(http://ashipunov.info/shipunov/school/biol_154/)
- Plants are extremely important, highly diverse and deserve a scientific study
- In class, we will mostly work with plants₂

For Further Reading



J. E. Bidlack, Sh. H. Jansky.
Stern's introductory plant biology. 12th edition.
McGraw-Hill, 2011.
Chapter 1.



Th. L. Rost, M. G. Barbour, C. R. Stocking, T. M. Murphy.
Plant Biology. 2nd edition.
Thomson Brooks/Cole, 2006.
Chapter 1.2.