

Introduction to Botany. Lecture 1

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Outline

- 1 Course in general
 - Description
 - Grading
- 2 Intro test
 - Multiple choice questions
- 3 Plants: importance and definition
 - Importance



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Course in general

Description



Course

This course is based on seven central concepts:

- A Photosynthesis
- B Symbiogenesis
- C Life cycle
- D Tissues
- E Living skyscrapers: plant organs
- F Trees and seeds
- G Flowering plants (gymnosperms version 2.0)

Remember: plants are not animals!



Note:

- Introduction to Botany is a **topic class** intended to Biology and Science majors.
- Chemistry is not a formal prerequisite but will be required, as well as a basic knowledge of math and physics.
- For non-science majors, I highly recommend Biol 111 instead.



Instructor

- Dr. Alexey Shipunov
- Office: Moore 229
- Office Hours: Mondays, Wednesdays and Fridays, 11 am to 12 am
- Phone: 858-3116
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Lectures Mondays, Wednesdays and Fridays, 10:00 am to 10:50 am, Moore 16

Laboratories Mondays and Wednesdays, Moore 210

Laboratories will start next week!



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



Class materials:

- [Syllabus](#) (PDF, 0.2 Mb)
- [Lecture 1](#) (PDF, 0.2-Mb)
- [Introduction to Botany: textbook](#) (PDF, 10 Mb)

Folders:

- [Old lectures \(2010\)](#)
- [Old lectures \(2011\)](#)
- [Old lectures \(2012\)](#)
- [Old lectures \(2013\)](#)
- [Old lectures \(2014\)](#)

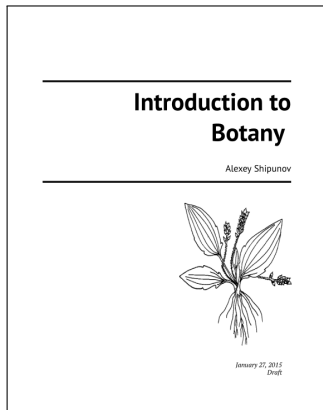
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http://ashipunov.info/shipunov/school/biol_154

Please check it regularly. There will be much more material due course. As a rule, slides of every lecture will be available after this lecture.



Textbook



Shipunov, Alexey. Introduction to Botany.

URL:

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

Textbook is updating constantly! Download it frequently!



Course in general

Grading



Exams

- **Four equal exams** are given
- There is a possibility for **one make-up** exam
- Two failed exams mean the failed class



Preparation to exams

- Download go through all lecture slides / study guide
- Clarify remaining questions with textbook
- Use external sources (like Wikipedia) to explore the rest
- Try not only memorize this stuff, but also understand how things work



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 me right after the particular laboratory session.
- While some plants are still available, we will study outdoor. As a result, **labs will not exactly correspond with lectures**: our lab sequence is independent.



Absence

There are five legitimate reasons for absence from exams or labs:

- A emergency situations,
- B attested medical conditions
- C military duty,
- D participation in MSU sports events,
- E dependent sick leave.

Absence from exams or laboratories must be announced to the instructor in advance.



Lectures and final questions (quizzes)

- I strongly recommend attending lectures regularly. Lecture contents will supersede the textbook.
- Make notes based on my explanations and board drawings, do not copy slides!
- At the end of every lecture I will give one short test question to answer. Typically, that question will give you from 1 to 3 points.



Points

A total of 640 points can be earned and are distributed as follows:

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

Exams : 400 points

Laboratories : 180 points (15 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.



Intro test

Multiple choice questions



Question 1

- 1 Why deciduous plants take off their leaves?
- ☐ A To prevent freezing
 - ☐ B To prevent drying
 - ☐ C To get rid of poisonous chemicals



Question 2

2 Where does human digestion process start?

- ☒ A In the mouth
- ☐ B In the intestines
- ☐ C In the stomach



Question 3

3 Which birds do NOT live in Minot on winter?

- ☐ A Crows
- ☐ B Hummingbirds
- ☐ C Sparrows



Question 4

4 Home country of watermelon:

- ☐ A Central America
- ☐ B Canada
- ☐ C South Africa



Question 5

- 5 Why do insectivorous plants eat insects?
- ☐ A To obtain the lacking mineral resources
 - ☐ B To get an addition to their common “menu”
 - ☐ C To get rid of herbivores



Question 6

6 Which insects have no queen?

- ☐ A Bumblebees
- ☐ B Ants
- ☐ C Cockroaches



Question 7

7 Oak tree is pollinated by:

- ☐ A Wind
- ☐ B Bees
- ☐ C Flies



Question 8

8 Spider has:

- ☐ A 6 legs
- ☐ B 8 legs
- ☐ C 4 legs



Question 9

9 Apple flower has:

- ☐ A 5 petals
- ☐ B 4 petals
- ☐ C 3 petals



Question 10

10 Frightened man has:

- ☐ A Bigger pupils
- ☐ B Smaller pupils
- ☐ C Normal pupils



Question 11

11 Polar bears are not eating penguins because:

- ☐ A Penguins run very fast
- ☐ B They cannot meet
- ☐ C Penguins are poisonous for bears



Question 12

12 How many toes are on each of cat's hind legs?

- ☐ A 5
- ☐ B 4
- ☐ C 3



Question 13

13 Pineapple is a:

- ☐ A Tree
- ☐ B Shrub
- ☐ C Herb



Question 14

14 If somebody has an artery cut on the arm or leg, it is recommended:

- ☐ A Put a tight bandage below the cut
- ☐ B Put a tight bandage above the cut
- ☐ C Do nothing



Question 15

15 Which of the following is the most precise statement?

- ☐ A We are breathing to support our life
- ☐ B We are breathing to obtain the energy from food
- ☐ C We are breathing to have enough strength for food consuming



Question 16

16 Which tree is better to plant in Minot house backyard:

- ☐ A Sycamore
- ☐ B Ash
- ☐ C Yew



Question 17



17 Moles eat:

- ☐ A Worms
- ☐ B Roots
- ☐ C Frogs



Question 18

18 Which fish gives birth to the fully developed offspring?

- ☐ A Sturgeon
- ☐ B Shark
- ☐ C Flounder



Question 19

19 Which human organ lives longer?

- ☐ A Heart
- ☐ B Lungs
- ☐ C Brains



Question 20

20 Which plant normally has a longer root?

- ☐ A Spruce
- ☐ B Chokecherry
- ☐ C Blueberry



The key

1B; 2A; 3B; 4C; 5A; 6C; 7A;
8B; 9A; 10A; 11B; 12B; 13C;
14B; 15B; 16B; 17A; 18B; 19A;
20B

Please calculate a sum (every right answer = 1 virtual point)



Plants: importance and definition

Importance



Importance of plants

Why are plants important?



Final question (1 point)

Label your answer with your second name and also your **class ID**: any four digits in any combination, from 0000 to 9999.



Final question (1 point)

Why are plants important?

Label your answer with your second name and also your **class ID**: any four digits in any combination, from 0000 to 9999.



Summary

- BIOL 154: download the syllabus from the Web site
(http://ashipunov.info/shipunov/school/biol_154/)
- Plant is not an animal!
- Plants are extremely important, highly diverse and deserve a scientific study



For Further Reading



A. Shipunov.

Introduction to Botany [Electronic resource].

2015.

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