

# Ethnobotany. Lecture 1

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- Classification



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# Course in general

## Description



# Course description

The field of ethnobotany studies the uses of plants by humans. This course will focus on the diversity of plant uses, covering approaches of diverse cultures, including plant uses specific to North Dakota, especially plant uses of Native Americans. Objectives are that students:

- will have integral picture of plant uses and their respective cultural background/histories;
- will be able to analyze information accompanying different plant-based products (including pharmaceutical);
- will know basic principles of plant cultivation, useful plant identification and survival based on plant use.

Students will demonstrate this knowledge in a classroom presentation at the beginning of lectures. Laboratories will concentrate on plant cultivation, collection, identification and databasing.



# Instructor

- Dr. Alexey Shipunov
- Office: Moore 229
- Office Hours: Mondays, Wednesdays and Fridays, 10 a.m. to 11 a.m.
- Phone: 858-3116
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**Lectures** Mondays, Wednesdays and Fridays, 9:00 a.m. to 9:50 a.m., Moore 211

**Laboratories** Tuesdays and Thursdays 1:00 p.m. to 3:00 p.m., Moore 213

Lab sections will be additionally split to fit in the greenhouse. In some cases, labs will be spread over the weekdays. We also will have two outdoor excursions which last longer.

**Textbook : None.**

**Reference texts** : Several reference texts will be available on-line. Another reference (Heinrich et al. 2012. Fundamentals of Pharmacognosy and Phytotherapy) covers the pharmacognosy part of course. For the basic knowledge of botany, the on-line textbook “Introduction to Botany” (draft) is available.



# Course Web site

© Shipunov, A. Ethnobotany [Electronic resource]. 2011—onwards.  
Mode of access: [http://ashipunov.info/shipunov/school/biol\\_310](http://ashipunov.info/shipunov/school/biol_310)

## BIOL 310: Ethnobotany



Course materials:

- [Syllabus](#) (PDF, 0.14 Mb)
- Reference: [Introduction to Botany \(textbook, draft\)](#) (PDF, 10 Mb)
- Reference: [P. Zhukovskij "Cultivated plants and their wild relatives"](#) (DjVu\*, 3.5 Mb)
- [Lecture 1](#) (PDF, 0.1 Mb)
- [Old lectures](#) (2011)
- [Old lectures](#) (2013)
- [Guidelines for Ethnobotany projects](#) (PDF, 0.1 Mb)

\* DjVu is similar to PDF, but much smaller in size and created in AT&T specifically for scanned books. To read it, download and install viewer from [here](#) (Windows and Mac OS) or [here](#) (for Windows, Mac OS and Linux).

[Back](#)

[http://ashipunov.info/shipunov/school/biol\\_310/](http://ashipunov.info/shipunov/school/biol_310/)





# Course in general

## Grading



# Exams

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



# Labs

- 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.



# 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 must be announced to me in advance. I strongly recommend to attend lectures regularly since lectures are the main reference.



# Presentations

- Every Wednesday lecture will start from a short (10 min / 8 slides) presentation(s) and degustation (tasting) of cultivated plant.
- Every student in a class will have a **project** including this presentation, tasting, and growing the plant in the greenhouse.
- Presentation is mandatory and counted as an exam. Growing the project plant is considering as a lab part.
- List of plants for presentations and guidelines will be available for download on the Web site.



# Points

A total of  $\approx 540$  points can be earned and are distributed as follows:

**Three best exams** :  $\leq 240$  points (assuming 80 points per exam)

**Presentation** :  $\leq 80$  points

**Laboratories** :  $\leq 240$  points (20 points per lab  $\times$  12 labs)

Grading points may vary between exams and labs.



# 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.



# Ethnobotany

## Introduction



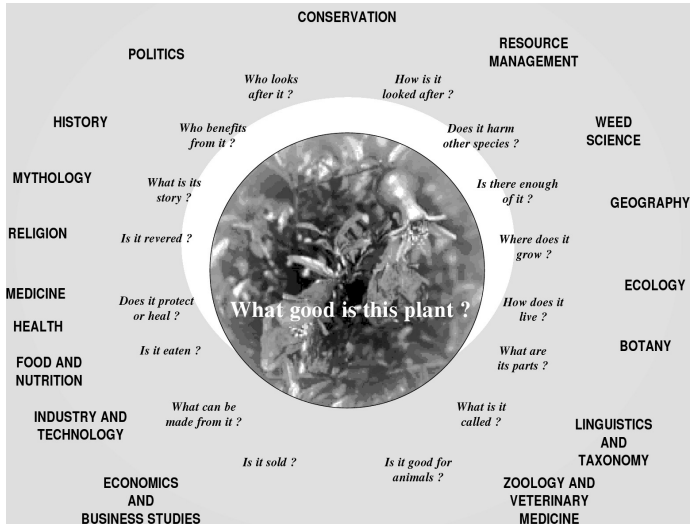


# Ethnobotany in general

- Ethnobotany is not a “pure” science, it is a multidisciplinary approach on the boundary of botany, genetics, evolution, history, anthropology and sociology
- It may be taught in strikingly different ways, and each ethnobotany course is different
- We will concentrate on plant uses along with evolutionary and historical aspects, and will emphasize the use of plants by Native Americans and useful prairie plants of North Dakota



# Ethnobotanical matrix



# Ethnobotany

## Classification



# Basics of scientific classification

- Every plant belongs to several embedded taxonomic groups
- Every group has **name** and **rank**
- Names usually are one Latin word, but species have **binary names**: name of genus + species epithet
- Most important ranks are (in sequence from bigger to smaller): **kingdom, family, genus** and **species**
- In addition, we will sometimes deal with **subspecies, variety**, and **cultivar**. The last is especially important for ethnobotany.



# Taxonomic framework for cultivated plants

- All plants belong to its own kingdom, Vegetabilia.
- Most of cultivated plants are angiosperms (flowering plants, Angiospermae).
- In most cases, we will need to **memorize the family** of plant. This is important characteristic since families are stable natural units of common evolutionary origin.



# Homework

- Download project guidelines, choose **3** plants
- Also, create your 6-digit class ID
- I will collect these on the next lecture



# Summary

- Ethnobotany in a compound science including all aspects of plant use.



# For Further Reading



A. Shipunov.

*Ethnobotany* [Electronic resource].

2011—onwards.

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