

Agronomy I (1st year)

No. of credits 3

Subject structure (weekly assigned hours)

Semester	Lecture	Seminar	Practical session	Project
II	1	-	1	-

Subject status

Compulsory

Person in charge

Assist. Prof. Dr. Denis TOPA

Subject objectives (lectures and applications)

The aim of the course is to have students acquire knowledge on crops botanical organs, introduction the subject of the soil as an object of study, including a broad overview of its history, concept of humus, soil horizon nomenclature and the main soil types. Presentation of growing factors and how to control them; explaining the most appropriate methods of tillage for a rational soil management; identification of some common types of weeds and explaining the negative role of them on crops and on final products quality; explaining the way how to use the chemicals in agriculture to increase the crop and soil productivity potential and to avoid pollution; explaining the fundamental principles essential to understanding field crop production.

Practical training for the students is organized in: practical stages laboratory, applying method for soil physical determination, studying the collections of dried plants and seeds, visits in Seed Crop Control Institute. The objective is to provide for the students the knowledge and practical abilities, to be able to determine optimum cropping system, select the most appropriate fertilization system and weed control for main crops.

Subject content (syllabus)

Lectures	Hrs.
Botany – plant organs	2
Pedology - Soil as habitat for plant growth and development	2
Soil management - Vegetation and climatic factors that promote or limit plant growth and development/Soil tillage/Cultivation tillage/Chemical fertilizers and amendments/ Weeds and their control	3
Field crop production: Cereals, <i>Poaceae</i> family (or <i>Gramineae</i>)/Legume (pea, or bean family) - <i>Fabaceae</i> family (or <i>Leguminosae</i>)/Oilseed crops/Root crops	7

Practical Sessions	Hrs.
Soil profile	2
Soil physical properties (Bulk density/Penetration resistance/Soil humidity)	2
Biological particularities of weeds/Weeds classification	2
Seed quality control	2
Morphological characteristics of cereals/legume	4
Morphological characteristics of root/oilseed crops	2

Bibliography

1. John H. Martin, Richard P. Waldren, David L. Stamp, 2006 – Principles of Field Crop Production.
2. Avarvarei, Teona, 1999 - Agricultură generală, vol. I, Editura Ion Ionescu de la Brad, Iași.
3. Avarvarei Teona, 2002 – Agricultură generală, vol II, Editura Ion Ionescu de la Brad, Iași.
4. Avarvarei Teona, 2006 – Agricultură generală - lucrări practice, Editura Ion Ionescu de la Brad, Iasi.
5. **Denis Țopa**, Gerard Jităreanu, Costică Ailincăi, Lucian Răus, 2013 – Impactul unor sisteme minime asupra producției și fertilității solului. Editura “Ion Ionescu de la Brad”, Iași. ISBN 978-973-147-122-8
6. Onisie T., Jitareanu G., 1999 – Agrotehnica, Editura Ion Ionescu de la Brad, Iasi.
7. Axinte M., 2004 – Fitotehnie, Editura Ion Ionescu de la Brad, Iasi.

Subject content knowledge (Final evaluation)

Evaluation type	Evaluation methods	Percentage from final
Exam	multiple choice test	65 %
Individual activity during respective semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	35 %

Contact person

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