

## Tárgytematika / Course Description

### Principles of Agrometeorology

MENB\_VKTA002

Tárgyfelelős neve /

Teacher's name: dr. Varga Zoltán

Félév / Semester: 2022/23/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/1/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

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### OKTATÁS CÉLJA / AIM OF THE COURSE

The course Agrometeorology focuses on working of the complex environmental system from an applied meteorological aspect. The agricultural production is basically and permanently influenced by atmospheric conditions, that is the reason why it is essential to study, to collect data and to give information about weather and climate and their impacts.

After finishing the course successful students will be able to recall the basic concepts of this scientific field, to describe the most important relationships between atmosphere and crops, to integrate the new knowledge about agrometeorological issues with older environmental knowledge and to assess the value of up-to-date information about this scientific area.

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### TANTÁRGY TARTALMA / DESCRIPTION

#### Content of the lectures:

*Week 1:* The history and the importance of agricultural meteorology

*Week 2:* Principles of the relationship between atmosphere and agricultural production

*Week 3:* The impact of the composition of atmosphere on crops

*Week 4:* The impact of radiation on crops

*Week 5:* The impact of temperature on crops

*Week 6:* The impact of humidity elements on crops

**Week 7:** The impact of extreme meteorological values on crops

**Week 8-9:** Climatic classification systems for agriculture

**Week 10-11:** Agroclimatic characterization of Hungary

**Week 12-13:** Possible modification of meteorological conditions

**Week 14:** Up-to-date questions of agricultural meteorology

**Practical lessons** focus on practical use of agrometeorological information.

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## **SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD**

Students must attend the weekly lectures as well as practical lessons. No more than 25% of the lectures and practical sessions are allowed to be missed for any reason. Extra lectures may not be provided for missed sessions.

Type of the exam: oral examination with theoretical and practical questions. There is no possibility for pre-exam. All topics will be discussed in the exam.

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## **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

### ***Compulsory reading:***

*Varga-Haszonits Z. – Varga Z. (2020): Principles of agrometeorology. Lecture notes, Mosonmagyaróvár.*

*Varga-Haszonits Z. – Varga Z. (2020): Agrometeorological practices. Lecture notes, Mosonmagyaróvár.*

(These lecture notes are the English version of the original lecture notes used by Hungarian students.)

### ***Recommended literature:***

*Behringer. W. (2009): A Cultural History of Climate. John Wiley and Sons, New Jersey. (ISBN: 978-0-7456-4529-2)*

*Hartmann, D.L. (1994): Global physical climatology. Academic Press. (ISBN 0-12-328530-5)*