

Tárgytematika / Course Description Genetics

MENB_ÁTTA002

Tárgyfelelős neve /

Teacher's name: dr. Matics Zsolt

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/0/0

Tárgy féléves óraszám /

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

OKTATÁS CÉLJA / AIM OF THE COURSE

Objective of the course

In addition to basic genetics knowledge, the course gives information about the different breeding methods used in animal husbandry and diseases of different animal species with genetic background. In addition to classical genetics, students can also get acquainted with the main areas of modern genetic procedures and methods.

TANTÁRGY TARTALMA / DESCRIPTION

Main topics of the course

- The concept of genetics and its connection to different disciplines
- Forward and reverse genetic analyses
- Genes and environment (genotypes, phenotypes)
- Basic rules of genetics (Mendel), dominant and recessive alleles
- DNS (structure, replication, transcription, translation)
- Population genetics, changes in genetic structures of populations, breeding strategies
- Genetic background and heredity of qualitative and quantitative traits
- Evolution genetics
- Genetic defects, inherited disorders
- Modern genetic methods and their application

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Evaluation

- Requirements of course acceptance: active participation in lectures.

- Requirements for exam: Successful completion of „ZH”.
 - Course ends with an oral exam.
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KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Compulsory and optional literature

N. Ramroop Singh: Open Genetics. Thompson Rivers University, Kamloops, BC

Presentations of the course.

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL