

Tárgytematika / Course Description

Genetics

MENB_ÁTTA002

Tárgyfelelős neve /

Teacher's name: Dr. Szalai Klaudia

Félév / Semester: 2022/23/1

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

In addition to general knowledge of genetics, the subject covers genetic characteristics specific to each animal species. In addition to classical genetics, students will be introduced to major areas of molecular genetics. They can learn about the genetic burden of different animal species and their detection possibilities.

TANTÁRGY TARTALMA / DESCRIPTION

The main topics:

The concept of genetics and its connection to different disciplines

The work of Mendel, Morgan

The hereditary material (structure, replication, transcription, translation process)

Population genetics

Population genetic basis of breeding procedures

Genetic defects in different animal species

New genetic methods and their application

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Signature condition:

Participation in lectures and consultations. The examination shall be in writing and/or in orally. The exam must be accompanied by a document proving your identity.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Required and recommended literature:

Animal breeding and genetics for BSc students

Kor Oldenbroek en Liesbeth van der Waaij, 2014.

Centre for Genetic Resources and Animal Breeding and Genomics Group, Wageningen University and Research Centre, the Netherlands.

Biology book (Openstax) – Unit 3 (page: 445-704)

Rice University, 2018.

Biology 2e book (Openstax) – Unit 3 (page: 279-441)

Rice University, 2020.

Introduction to genetics – a molecular approach.

Terry Brown, 2012 by Garland Science, Taylor & Francis Group, LLC

Principles of Animal Genetics and Population Genetics

R. Thiagarajan, Satish Serial Publishing House