Level: master
Course title: Fertilisation and Embryogenesis
Status: obligatory
ECTS: 5

Requirements: -

Learning objectives

Detailed understanding of gametogenesis, fertilisation phase *in vivo*, forming of conceptus and embryo, practical recognition of detailed structure of gonads in mammals under microscope, whole embryo and its tissues

Learning outcomes

Upon completion of the course, the students will be able to recognise the structure and needs of conceptus in detail in order to comprehensively participate in assisted reproduction methods.

Syllabus

Theoretical instruction

Introduction into history of reproductive biology – embryology as science. Oogenesis. Spermatogenesis. Phases of *in vivo* fertilisation. Blastomerisation. Implantation. Gastrulation and neurulation. Brachial system and development of the main part of embryo. Development of cardiovascular system.

Development of digestive system. Development of respiratory, urinary, genital and endocrine system. Teratology basics.

Practical instruction

Microscope use exercises on animal and human material, analysis of histological of female and male specimen of genital system and embryo.

| Weekly teaching load | | | | Other: |
|----------------------|------------|--------------------------|-------------------|--------|
| Lectures: | Exercises: | Other forms of teaching: | Student research: | - |
| 3 | - | 2 | - | |