

Level: master				
Course title: PRACTICUM IN REPRODUCTION				
Status: obligatory				
ECTS: 6				
Requirements: -				
Learning objectives Obtaining practical skills in micromanipulation with gametes on experimental animal models.				
Learning outcomes Upon completion of pre examination activities and final examination, the students will master basic techniques used in the process of <i>in vitro</i> fertilisation.				
Syllabus <i>Theoretical instruction</i> Ethical aspects of using experimental animal models. Characteristics of spermatozoa. The zebrafish (<i>Danio rerio</i>) as experimental model in embryology, embryonic development. Developmental stages of ovarian follicles of mice. <i>In vitro</i> fertilisation of mice oocyte. <i>Practical instruction</i> Microscopic analysis of mice spermatozoa (concentration, viability, morphology and mobility of spermatozoids). Evaluation of acrosome status and acrosome reaction in mice spermatozoa. Isolation and recognition of mice ovarian follicles at different development stages. Working with micromanipulator and microinjector. Micromanipulation on the zebrafish embryos: colour injection, dechoriation, blastomere extraction. <i>In vitro</i> fertilisation of mice oocytes (superovulation, sperm capacitation, collecting oocytes, <i>in vitro</i> fertilisation). Keeping laboratory diary.				
Weekly teaching load				Other: -
Lectures: 1	Exercises:-	Other forms of teaching: 4	Student research: -	