

## **Course plan: Methods and Grant Application in Clinical and Translational Research 1.5 ECTS**

**Aim:** To provide valuable insight into the research field of Reproduction and Development.

**Eligibility:** Enrolled as PhD student, Good command in English. All lectures and assignments will be in English.

**General information:** The course is open to PhD students in different fields relevant to Reproduction and Development such as caring sciences, medicine, psychology, and public health.

**Credits:** 1.5 ECTS

**Grading:** Approved/Not approved

**Level of education:** Postgraduate

**Course type:** Subject course

**Main field:** Medical science

**Language:** English

**Course length:** Week 6-7, 2026

**Responsible department:** Department of Women's and Children's Health, Uppsala University

**Number of participants:** 10-30. PhD-students at the Disciplinary Domain of Medicine and Pharmacy at Uppsala University will be prioritized.

**Course plan valid from:** Spring 2026.

### **Learning outcomes**

After completion of the course, the PhD-student should be able to:

#### *Knowledge and understanding*

- Describe basic reproductive physiology, endocrinology, and child development
- Describe different research methodology used in the research field of Reproduction and Development.
- Describe possible confounders, and other pitfalls in the field.
- Identify ethical considerations in the research field.

#### *Skills and capacities*

- To combine different methodologies to construct a research plan for an application, within the research field of Reproduction and Development, where potential confounders and ethical aspects are taken into consideration.

#### *Evaluative capacity and approach*

- Evaluate and choose appropriate research methodologies for their own research topic.
- To do a constructive evaluation of other PhD-students research applications.

### **Examination**

The PhD- student must write and submit a research proposal for evaluation by senior researchers and other course participants. The research proposal must combine different research methodologies and consider possible confounders, pitfalls, and ethical aspects. Successful completion of the course also requires 80 % attendance and the PhD-student must prepare for seminars and participate discussions during lectures, seminars, and workshops.

## **Content**

The course gives 1.5 ECTS and corresponds to 5 working days. In addition to the 2.5 days of lectures, seminar, and workshops, the PhD-student shall use 0.5 days for preparation of the seminar, workshops and finally 2 days for writing the research proposal and reading one of the other student's proposals.

## **Lectures**

- Basic physiology of reproduction and pregnancy
- Reproductive endocrinology
- Placental function
- Barker hypothesis- implications for Swedish health registries
- Endocrinology and child development
- Neurodevelopmental tests in infants and children
- Animal models of reproduction and development
- Laboratory methodology

## **Workshops**

- Cultural aspects of reproduction and children's development
- Ethical considerations of reproduction and child development
- Conducting research in real world setting.
- How to write a research proposal

## **Seminar**

- Confounders in reproductive and developmental research: What confounding factors are our study subjects exposed to?

## **Literature**

The literature consists of articles and handouts.

## **Location**

Department of Women's and Children's Health, Uppsala University (detailed schedule will be announced).

## **Course leader**

Geraldine Giraud, [geraldine.giraud@igp.uu.se](mailto:geraldine.giraud@igp.uu.se)

## **Course administration**

Susanne Thorell Löberg, [susanne.loberg@uu.se](mailto:susanne.loberg@uu.se)

## **Additional information**

Departments will be charged SEK 2,000 per student who registers for the course but fails to participate without given two weeks before the start of the course.