



# **FHL3004 Environmental Physiology II, Human Experiments Using Centrifuge and Pressure Chambers 7.5 credits**

Omgivningsfysiologi II, humanexperimentell verksamhet i centrifug- och tryckkamaranläggningar

This is a translation of the Swedish, legally binding, course syllabus.

## **Establishment**

Course syllabus for FHL3004 valid from Spring 2021

## **Grading scale**

P, F

## **Education cycle**

Third cycle

## **Specific prerequisites**

Graduate student has completed the course "Environmental Physiology I, basic theoretical course".

## **Language of instruction**

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

The student shall, after having completed the course, have knowledge and understanding of:

- Writing a mock application to research ethics committee regarding experiments in either human centrifuge or pressure chamber.
- To run an experiment in centrifuge, hyperbaric pressure chamber, and altitude chamber in accordance with valid check lists and current routines
- To handle mock accidents in human centrifuge, hyperbaric chamber, and altitude chamber
- To handle the special measuring situations that occurs with human experiments in centrifuges, hyperbaric chambers, and altitude chambers, and during immersions

## Course contents

- Ethical considerations in connection with human experimentation in extreme environments.
- Medical requirements/health check-ups necessary for individuals who shall participate as experimental subjects/assistants in experiments in extreme environments
- Biophysical measuring techniques and practical problems with data collection during experiments in centrifuges, pressure chambers, and immersion facilities.

## Examination

- PRO1 - Project, 1.5 credits, grading scale: P, F
- SEM1 - Seminars, 2.0 credits, grading scale: P, F
- XUPP - Degree project, 4.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.

- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.