

The Cognition and Behaviour PhD programme of the Graduate school of Life Sciences is organized by the Helmholtz Research School. The Helmholtz PhD programme consists of at least 5 EC per year of PhD appointment (usually 4 years, so 20 EC). It consists of 4 different types of courses:

1. Helmholtz PhD Programme Courses (min. 8 EC or 40%)

General Helmholtz PhD Training (obligatory for all PhD students) 6 EC

This consists of

- Attendance of the RMI-Helmholtz introductory PhD student days
- Participation in the bi-annual Helmholtz Retraite
- Regular attendance of the Helmholtz Lectures, where guest researchers will present their work. A small number of PhD students can actively participate during the 'PhD student lunch' with these researchers;
- Regular attendance of at least one of the regular lab meetings, organized by most of the participant research groups.

Sensory Systems (bi-annually, 2 EC)

Coördination: dr. Maarten van der Smagt
Teachers: dr. Maarten van der Smagt, local experts
Basic knowledge: Basic Neuroscience and Cognition
ECTS : 2
Form: morning sessions: interactive lectures, assignments, experiments and presentations
Duration: 5 days spread over two weeks
Place/time/freq: Oktober 2010 (bi-annually)
Test: Students will be assessed on their participation in the interactive lectures and on the assignments. Grades will be in the form of pass/fail.
Literature: Topic-specific handouts
Description
Helmholtz experts will give highly interactive lectures on the above topics, which will provide the students with an opportunity to increase their knowledge on specific sensory systems, with an emphasis on learning to recognize what different sensory systems have in common.

Motor Systems (bi-annually, 2 EC)

Coördination: dr. Chris Dijkerman
Teachers: dr. Chis Dijkerman, local experts
Basic knowledge: participants are expected to be familiar with basic concepts of neurophysiology, muscle physiology, systems theory, and some classical mechanics
ECTS : 2
Form: morning sessions: lectures, afternoon sessions: simulation studies/experiments
Duration: 5 days spread over 2 weeks
Place/time/freq: October 2011 (bi-annually)

Test: Students will be assessed on their participation in the interactive lectures and on the assignments. Grades will be in the form of pass/fail.

Literature: Topic-specific handouts

Description

The course covers principles of motor control through a detailed discussion of a number of well worked out examples of motor activity such as looking, speaking, grasping and visuo-motor control.

Cognitive Neuropsychology (bi-annually, 2 EC)

Coördination: Prof. Albert Postma

Teachers: Prof. Albert Postma, local experts

Basic knowledge: Basic Neuroscience and Cognition

Form: morning sessions: lectures, afternoon sessions: assignments, experiments and presentations

Duration: 5 days spread over 2 weeks

Place/time/freq: Spring 2011 (bi-annually)

Test: Students will be assessed on their participation in the interactive lectures and on the assignments. Grades will be in the form of pass/fail.

Literature: Topic-specific handouts

Description

The course covers principles and research in Cognitive Neuropsychology

Affective Neuroscience (bi-annually, 2 EC)

Coördination: Prof. dr. Jack van Honk

Teachers: Prof. dr. Jack van Honk, local experts

Basic knowledge: Basic Neuroscience and Cognition

Form: morning sessions: lectures, afternoon sessions: assignments, experiments and presentations

Form: morning sessions: lectures, afternoon sessions: assignments, experiments and presentations

Duration: 5 days spread over 2 weeks

Place/time/freq: Spring 2012 (bi-annually)

Test: Students will be assessed on their participation in the interactive lectures and on the assignments. Grades will be in the form of pass/fail.

Literature: Topic-specific handouts

Description

The course covers principles and research in affective neuroscience.

Linear Systems Analysis (3 EC)

Coördinator : Prof.dr. M.A. Frens (Neuroscience, Erasmus MC)

Teachers: Prof.dr. M.A. Frens, local experts

Basic knowledge : Participants are expected to be familiar with high school algebra

Form : morning sessions: lectures; afternoon sessions: exercises and simulations

Duration: 3 days plus preparation

Place/time/freq: Rotterdam: 16, 17, 18 Feb 2010
Literature: D.A. Robinson: Systems Analysis in Oculomotor Control Systems

Description

This course teaches the basic concepts of linear systems analysis, applied to neurosciences. The main topics are: differential equations, Fourier analysis, Laplace analysis, filtering, and feedback. Examples that are used will stem from neurophysiology and psychophysics, but also from the daily routine of measuring and analyzing experimental data.

Our main goal is to help students without an extensive mathematical background overcome a fear for a quantitative approach of problems, and to show more theoretically oriented students the applications of systems analysis in biological control systems. We will make an effort to keep the course material in relation to daily experimental problems.

Helmholtz Incidental Courses (1-2 EC)

Annually changing topics in Research:

February-March 2010: Beslissen als Model (Harald Kunst)

February-March 2012: Beslissen als Model (Harald Kunst)

Helmholtz Journal Club (1 EC per year of participation, maximum of 2 EC)

Teachers: Serge DuMoulin, Chris Paffen, other research staff.

Bi-weekly discussion and presentation of recent research papers.

2. General courses (min. 4 EC or 20%)

These are courses in general professional skills such as written and oral communication, statistics, methods, project management, teaching, clinical training, certificate training, NWO talentclasses etc. A selection of such courses can be found on the website of the Graduate school of Life Sciences.

3. Conferences and Summerschools (max. 4 EC or 20%)

In concurrence with the supervisor, each PhD student is supposed to participate actively in one or more international conferences in a relevant field of science, or participate in summerschools. One conference yields 1 EC.

4. Other Training

Any course at graduate level that is deemed suitable by the student and supervisor can be included in the curriculum.