



Cognitive Neuropsychology (MScRes)

Vrije Universiteit Amsterdam - Faculteit der Psychologie en Pedagogiek - RM Cognitive Neuropsychology - 2014-2015

The Research Master program in Cognitive Neuropsychology is part of the William James Graduate School. The curriculum consists of obligatory courses and elective courses. It is a two year program of total 120 ECTS, 60 ECTS a year.

Goals of the Program

The aim of the Research Master is to provide students with the skills and knowledge to interpret clinical neuropsychological cases in terms of cognitive and neuropsychological theories. Moreover, students learn to use those cases to improve these theories. The curriculum consists of multiple courses in cognitive psychology, clinical neuropsychology, neuroscience, and general academic skills concerning methodology, writing, and modern brain imaging techniques.

[Course program 2014-2015 Research Master Cognitive Neuropsychology](#)

[Academic calendar 2014-2015](#)

[Teaching and Examination Regulations WJGS \(PDF\)](#)

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Research master Cognitive neuropsychology, year 1

First year Research Master Cognitive Neuropsychology consists of compulsory and elective courses.

Opleidingsdelen:

- [Research master Cognitive neuropsychology, year 1, Compulsory courses](#)
- [Research master Cognitive neuropsychology, year 1, Elective courses 1](#)
- [Practical electives](#)

Research master Cognitive neuropsychology, year 1, Compulsory courses

Below the first year compulsory courses.

Vakken:

| Naam | Periode | Credits | Code |
|---|------------------------|---------|------------|
| Advanced Data Analysis | Periode 4 | 6.0 | P_MADV DAT |
| Aging and Dementia | Periode 1, Periode 3 | 6.0 | P_MAGINGD |
| Brain Imaging | Periode 1, Periode 2+3 | 6.0 | P_MBRIMAG |
| Medical Neuroscience and Neuroanatomy | Periode 1+2 | 6.0 | P_MMEDINN |
| Programming for Psychologists | Periode 1 | 6.0 | P_MPROPSY |

Research master Cognitive neuropsychology, year 1, Elective courses 1

Students choose either one of the courses out of the Electives Pool, or (only once during their programme) the Review Paper.

Opleidingsdelen:

- [WJGS Electives Pool](#)

Vakken:

| Naam | Periode | Credits | Code |
|------------------------------|----------------------|---------|-----------|
| Review Paper | Ac. Jaar (september) | 6.0 | P_MREVPAP |

WJGS Electives Pool

Courses:

| Name | Period | Credits | Code |
|------|--------|---------|------|
|------|--------|---------|------|

| | | | |
|--|----------------------|-----|-----------|
| Advanced Research Training | Ac. Year (September) | 6.0 | P_MADVRT |
| Advanced Structural Models | Period 2 | 6.0 | P_MADSTRM |
| Aging and Mental Health | Period 2 | 6.0 | P_MAGMENT |
| Autism and Developmental Disorders | Period 2 | 6.0 | P_MAUTDEV |
| Leadership and Organisations | Period 2 | 6.0 | P_MLEAORG |
| Memory and Memory Disorders | Period 2 | 6.0 | P_MMEMORY |
| Neuroscience and Education | Period 2 | 6.0 | P_MNEURED |
| Thinking and Deciding | Period 2 | 6.0 | P_MTHIDEC |

Practical electives

Programme components:

- [Elective package 1](#)
- [Research master Cognitive neuropsychology, year 1, Elective package 2](#)

Elective package 1

Vakken:

| Naam | Periode | Credits | Code |
|--|---------------|---------|-----------|
| Practical Skills for Researchers | Periode 4+5+6 | 18.0 | P_MPRACSK |
| Seminar Attention | Periode 5 | 6.0 | P_MSEMATT |

Elective package 2

Elective package 2 contains a clinical internship and several workshops. Both are lectured in the Dutch language.

Vakken:

| Naam | Periode | Credits | Code |
|--|---------------|---------|------------|
| Klinische stage RM Cognitive Neuropsychology | Periode 4+5+6 | 24.0 | P_MKSRMCNP |

Research master Cognitive neuropsychology, year 2

Second year Research Master Cognitive Neuropsychology consists of compulsory and elective courses.

Opleidingsdelen:

- Research master Cognitive neuropsychology, year 2, Compulsory courses
- Research master Cognitive neuropsychology, year 2, Elective courses 3

Research master Cognitive neuropsychology, year 2, Compulsory courses

Below the second year compulsory courses.

Vakken:

| Naam | Periode | Credits | Code |
|--|------------------------|---------|-----------|
| Brain Imaging | Periode 1, Periode 2+3 | 6.0 | P_MBRIMAG |
| Master's Thesis Clinical and Cognitive Neuropsychology | Ac. Jaar (september) | 30.0 | P_MTHCCNP |
| Neuropsychological Dysfunctioning in Psychiatric Disorders | Periode 1 | 6.0 | P_MNDPD |
| Seminar Cognitive Neuroscience | Periode 2 | 6.0 | P_MSEMCNS |
| Thesis Proposal RMCNP | Periode 3 | 6.0 | P_MTHPROP |

Research master Cognitive neuropsychology, year 2, Elective courses 3

Programme components:

- [Electives Pool research masterls William James Graduate School](#)

Courses:

| Name | Period | Credits | Code |
|------------------------------|----------------------|---------|-----------|
| Review Paper | Ac. Year (September) | 6.0 | P_MREVPAP |

WJGS Electives Pool

Courses:

| Name | Period | Credits | Code |
|--|----------------------|---------|-----------|
| Advanced Research Training | Ac. Year (September) | 6.0 | P_MADVRT |
| Advanced Structural Models | Period 2 | 6.0 | P_MADSTRM |
| Aging and Mental Health | Period 2 | 6.0 | P_MAGMENT |
| Autism and Developmental Disorders | Period 2 | 6.0 | P_MAUTDEV |
| Leadership and Organisations | Period 2 | 6.0 | P_MLEAORG |
| Memory and Memory Disorders | Period 2 | 6.0 | P_MMEMORY |

| | | | |
|--|----------|-----|-----------|
| Neuroscience and Education | Period 2 | 6.0 | P_MNEURED |
| Thinking and Deciding | Period 2 | 6.0 | P_MTHIDEC |

Other information

Opleidingsdelen:

- [MSc Cognitive neurops - Transition rules](#)
- [Subscription terms](#)

MSc Cognitive neurops - Transition rules

Courses:

| Name | Period | Credits | Code |
|--|----------|---------|-----------|
| Human Information Processing | | 6.0 | P_MHINFOP |
| Neural Models of Cognitive Processes | Period 5 | 6.0 | P_MNEUMOD |
| Perception | Period 2 | 6.0 | P_MPERCEP |

Subscription terms

Advanced Data Analysis

| | |
|----------------------|---|
| Vakcode | P_MADV DAT (815033) |
| Periode | Periode 4 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. M. Gallucci |
| Examinator | dr. M. Gallucci |
| Docent(en) | dr. M. Gallucci |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

This course provides a theoretical overview and detailed practical knowledge concerning statistical analyses of social psychological data.

Inhoud vak

After an introduction of the general linear model, with emphasis on estimation of effect sizes and hypothesis testing, the course concentrates on applications of the model, such as analysis of variance, regression analysis, path analysis, and logistic regression. Along with these techniques, issues such as mediation, moderation, and hypothesis

testing are considered. The aim of the course is to enable students to plan, execute, and interpret appropriate statistical analyses for applied and experimental research data. Because the application of advanced statistical techniques is central to the course, students will have several assignments to analyze existing data sets, and interpret the results.

Onderwijsvorm

Lectures and tutorials.

Toetsvorm

Exams and assignments.

Literatuur

- Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003), Applied Multiple regression / correlation; analysis for the behavioural sciences (3rd ed.) Hillsdale, NJ: Erlbaum
- Additional material provided during the course.

Advanced Research Training

| | |
|--------------------|---|
| Vakcode | P_MADVRT () |
| Periode | Ac. Jaar (september) |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. J.W. van Prooijen |
| Examinator | dr. J.W. van Prooijen |
| Niveau | 400 |

Doel vak

To gain additional experience in designing and conducting a research study, analyzing the data, and writing a report.

Inhoud vak

This is a free choice-course that is designed for students who would like to gain more research experience. Students will participate in the research programme by a staff member. In close collaboration with the staff member, the student will design and conduct a research study, and analyze the data. Typically, the supervisor will be a different staff member than the student's supervisor for Research project I, II, or III, unless explicitly approved of by the coordinator of this course. The project will end with a research report written by the student.

Onderwijsvorm

Individual supervision

Toetsvorm

Research report, to be graded according to the faculty's evaluation forms.

Literatuur

Depends on the topic

Overige informatie

The supervisor for this course should be part of (one of) the department(s) that organise the Research master programme the student is enrolled in.

The supervisor will be assigned depending on availability and on the specific project that the student will work on.

Students can take this course only once, so either in year 1 or in year 2, not in both years.

Advanced Structural Models

| | |
|----------------------|---|
| Vakcode | P_MADSTRM (815005) |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. J.M. Tybur |
| Examinator | dr. J.M. Tybur |
| Docent(en) | dr. J.M. Tybur |
| Lesmethode(n) | Hoorcollege, Practicum |
| Niveau | 400 |

Doel vak

This course is designed to give students the skills to use structural equation modeling to analyze their data and to understand structural equation modeling results reported in the scientific literature.

Inhoud vak

The course will cover fundamental issues in social psychology research, including ethics in collecting and reporting data, assumptions underlying the null hypothesis significance testing framework, statistical power, and methods in assessing reliability and validity of instruments and methods. Each student will also research, write a paper on, and give a presentation on a method used in social psychology research.

Onderwijsvorm

There will be eight lectures in which the instructor teaches about structural equation modeling and seven practicum sessions in which the instructor will assist students with conducting analyses in the computer lab.

Toetsvorm

Assessment will include a research paper, a data analysis assignment, and a final exam. Partial grades are only valid during the study year in which the grade has been achieved.

Literatuur

Brown, T. A. (2006). Confirmatory factor analysis for applied research. New York: Guilford. Additional Journal articles will be assigned and available on blackboard.

Overige informatie

This course assumes basic knowledge of multiple regression and null hypothesis significant test.

Aging and Dementia

| | |
|----------------------|---|
| Vakcode | P_MAGINGD (815181) |
| Periode | Periode 1, Periode 3 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | prof. dr. E.J.A. Scherder |
| Examinator | prof. dr. E.J.A. Scherder |
| Docent(en) | prof. dr. E.J.A. Scherder |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

Provide an advanced course on the neuropathological, cognitive and behavioural consequences of aging and age- related neurodegenerative diseases, in particular dementia.

Inhoud vak

The neuropathology characteristic for aging and various subtypes of dementia will be related to specific functional neuronal circuits. Based on these functional neuronal circuits the clinical outcome in terms of cognitive and behavioural disorders will be explained. Specific attention will be given to the relationship between dementia and motor activity and between dementia and pain experience.

Onderwijsvorm

Plenary lectures, with an emphasis on interaction with the students.

Toetsvorm

Open-end questions.

Literatuur

E. Scherder. Aging and Dementia. Neuropsychology, motor skills and pain. VU Uitgeverij.

Aging and Mental Health

| | |
|----------------------|---|
| Vakcode | P_MAGMENT () |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | prof. dr. A.M. Pot |
| Examinator | prof. dr. A.M. Pot |
| Docent(en) | prof. dr. A.M. Pot |
| Lesmethode(n) | Hoorcollege |

| | |
|---------------|-----|
| Niveau | 400 |
|---------------|-----|

Doel vak

In this course, students will learn the psychological problems of older people and what is known about the effectiveness of psychological interventions.

Inhoud vak

The number of people 65 years or older in the Netherlands is increasing from 2,4 million now to 3,6 million in 2025. Psychological problems in later life need their own psychological interventions to reduce or prevent them. In this course, students will learn about the psychological problems of older people and what is known about the effectiveness of psychological interventions. These interventions are partly developed for younger adults and adapted for seniors, and partly specifically developed for problems in later life, such as providing family care and coping with losses, chronic diseases and disabilities. Because older adults form a heterogeneous and multiform group, scientific research on the effectiveness of interventions has its own problems. In this course, these problems and the challenges and threats of intra-individual techniques will be discussed. Students will participate in the ongoing research on the effectiveness of psychological interventions for older adults (RCT or N=1) affiliated to the Chair Geropsychology and write a paper based on the data.

Onderwijsvorm

Visit to long-term care Facility, lectures and active involvement of students.

Toetsvorm

Written exam, oral presentation, paper, and research proposal.

Literatuur

Journal articles and book chapters, specific references can be found on Blackboard.

Overige informatie

This course will be taught in 2014/15. This course will NOT be taught in 2015/16

Autism and Developmental Disorders

| | |
|----------------------|---|
| Vakcode | P_MAUTDEV () |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. S.M. Begeer |
| Examinator | dr. S.M. Begeer |
| Docent(en) | dr. S.M. Begeer |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

This course will offer a critical overview of recent research on phenotype, cause, prevalence, co-morbidity, assessment and treatment of autism spectrum disorders. Students will also be informed about the most recent assessment and treatment methods available in the Netherlands.

Inhoud vak

Autism Spectrum Disorders are complex neurobiological disorders that last throughout an individual's lifetime. With a prevalence of 1 in 150, they are more common than pediatric cancer, diabetes, and AIDS combined. However, few disorders seem more confusing than autism. Common stereotypes, of the withdrawn, mute child with repetitive activities, do no justice to the wide variety of individuals with an autism spectrum diagnosis. To date, there is no single treatment protocol for all children with autism spectrum disorders. More importantly, the information about the effectiveness of treatments is very limited. While the main focus will be on autism, several other disorders with overlapping problem domains will also be discussed.

Onderwijsvorm

Lectures and presentation meetings.

Toetsvorm

Written exam, oral presentation and research proposal.

Literatuur

Recent research papers provided through BlackBoard.

Overige informatie

This course will NOT be taught in 2015-16.

Brain Imaging

| | |
|----------------------|---|
| Vakcode | P_MBRIMAG (815103) |
| Periode | Periode 1, Periode 2+3 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. D.J. Heslenfeld |
| Examinator | dr. D.J. Heslenfeld |
| Docent(en) | dr. D.J. Heslenfeld |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

The course will treat physical principles, recording apparatus, and practical applications of the four major brain imaging techniques: EEG, MEG, MRI, PET, with an emphasis on EEG and MRI. These techniques will be discussed in detail and live demonstrated. We will visit the various labs, and students will participate in a small research project. This includes recording and analyzing brain imaging data in small supervised groups.

Inhoud vak

The course will treat physical principles, recording apparatus, and practical applications of the four major brain imaging techniques: EEG, MEG, MRI, PET, with an emphasis on EEG and MRI. These techniques will be discussed in detail and live demonstrated. We will visit the various labs, and students will perform a small research project of their own. This includes recording and analyzing your own brain imaging data in small supervised groups.

Onderwijsvorm

Lectures and obligatory practicals.

Toetsvorm

Written examination

Literatuur

- Luck, S (2005) An introduction to the Event -Related Potential Technique Cambridge, MA: MIT Press
- Huettel, S et al (2009) Functional Magnetic Resonance Imaging; (2 nd. ed.) Sunderland, MA: Sinauer;

Human Information Processing

| | |
|----------------------|---|
| Vakcode | P_MHINFOP (815048) |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. S.A. Los |
| Examinator | dr. S.A. Los |
| Docent(en) | dr. S.A. Los |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

Introduction to the major theories of human information processing and the experimental methods to test them.

Inhoud vak

In this course you will be familiarized with the literature on human information processing, which aims at understanding the functional architecture of processes intervening stimulus and response. Major themes include: (1) serial versus parallel organization of mental processes (2) continuous versus discrete transmission of information between consecutive processes (3) the controversy of the central bottleneck (4) the role of preparation and executive control. These themes are studied from a functional perspective: The focus is on what these processes are supposed to be doing rather than on where in the brain these processes are implemented. The dominant method in this literature is mental chronometry, which aims at making interferences on the basis of latency measures, such as response times and the onset of event- related brain potentials.

Onderwijsvorm

Lectures.

Toetsvorm

Written examination with open questions.

Literatuur

Journal articles to be specified on Blackboard.

Overige informatie

This course is taught every two years. It is NOT taught in 2014-15, but will be taught in 2015-16

Klinische stage RM Cognitive Neuropsychology

| | |
|--------------------|---|
| Vakcode | P_MKSRMCNP () |
| Periode | Periode 4+5+6 |
| Credits | 24.0 |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | S.R. van Eck MSc |
| Examinator | S.R. van Eck MSc |
| Niveau | 400 |

Doel vak

De stage Klinische Neuropsychologie dient ter oriëntatie op het werk van een neuropsycholoog binnen een klinische setting (zoals een bijvoorbeeld een verpleeghuis, revalidatiecentrum, algemeen ziekenhuis/medisch centrum of psychiatrische instelling). De stagiair leert met name het psychodiagnostisch proces in toenemende mate zelfstandig uitvoeren en wordt betrokken bij behandeling/advisering.

Inhoud vak

Oefenen van klinische vaardigheden.

Onderwijsvorm

Kennis onder begeleiding toepassen in de praktijk. De stageperiode neemt minimaal 560 uur in beslag (een halfjaar of meer) en vraagt een ruime tijdsinvestering. De afdeling ondersteunt naar vermogen het vinden van een stageplaats, maar de student heeft een eigen verantwoordelijkheid in het welslagen van het zoekproces. De plaats moet voldoen aan de door de afdeling gestelde eisen. Neem dus altijd contact op met de stagecoördinator.

Naast de stage dienen de volgende werkgroepen gevolgd te worden:

- 4 Supervisie bijeenkomsten (contactpersoon M. van Lieshout)
- 4 werkgroepen Neuropsychologische gespreksvoering (contactpersoon F. Jonker)
- Hoorcolleges behorende bij het vak Practical Skills for Researchers (contactpersoon L. Eggermont)

Toetsvorm

- Midterm tests behorende bij het vak Practical Skills for Researchers (contactpersoon L. Eggermont).
- Beoordeling stage door Ans Woldring in overleg met stagebegeleider.

Literatuur

S.C.M. van Esch en J.J.S van de Kreeke Recepten voor een goed gesprek – deel 1. SMPVU Amsterdam, 2007.

Vereiste voorkennis

Hiervoor gelden strikte richtlijnen te vinden op de website:

www.vu.nl/Images/Voorwaarden_klinisch_traject_CNP_web2013_tcm9-314881.pdf

Overige informatie

Dit vak kan meetellen voor de Basisaantekening Psychodiagnostiek.

Daarnaast moeten voor de voor de Basisaantekening Psychodiagnostiek ook drie casussen worden beschreven.

Leadership and Organisations

| | |
|----------------------|---|
| Vakcode | P_MLEAORG () |
| Periode | Periode 2 |
| Credits | 6.0 |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | R.D. Ronay |
| Examinator | R.D. Ronay |
| Docent(en) | R.D. Ronay |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

Leaders must be able to manage information, diagnose problems, and make effective decisions, as well as coordinate and motivate the human and social capital of their organizational members. This course aims to prepare you to understand and meet these goals by familiarizing you with leadership theory, and providing you with practical experiences through case studies and experiential activities.

Inhoud vak

This course uses insights from psychology and management science to inform students about leadership theory and practice. In addition to formal lectures, we will use a combination of case studies and practical exercises to help students develop their decision-making skills, their powers of persuasion and influence, and their ability to negotiate more effectively with others.

Onderwijsvorm

Course packet including articles, chapters, and cases.

Toetsvorm

Course contribution (10%); Group project (25%); Final exam (65%). Partial grades are only valid during the study year in which the grade has been achieved.

Literatuur

- Course packet including articles, chapters, and cases
- M. van Vugt & A. Ahuja. (2010). Selected: Why some people lead and why others follow, and why it matters. Profile Books. London.

Master's Thesis Clinical and Cognitive Neuropsychology

| | |
|--------------------|---|
| Vakcode | P_MTHCCNP (815105) |
| Periode | Ac. Jaar (september) |
| Credits | 30.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. R.J. Godijn |
| Examinator | dr. R.J. Godijn |
| Niveau | 500 |

Doel vak

To actively conduct experimental research in cognitive (neuro)psychology and report the results of this independent study in the master's thesis.

Inhoud vak

Students choose a topic in line with their personal interests in cognitive (neuro)psychology. Research for the master thesis can be conducted at the departments of Cognitive Psychology of Clinical Neuropsychology, an external research organization (eg., TNO), a company, or an (international) university other than the VU University.

A specific research question, hypotheses and testable predictions are formulated and reported to the department. Approval of this research proposal by the internal supervisor is required prior to the start of the study. The internal supervisor is a person from the academic staff of the departments of Cognitive Psychology of Clinical Neuropsychology who may be accompanied by an external supervisor if the research is performed outside the department.

The research performed by the students provides the basis for the master's thesis. The master's thesis is written in journal article style and should be written at a level appropriate for submission to an academic journal.

Toetsvorm

The thesis is evaluated on the basis of the quality of the student's master thesis and the quality of student's performance during the research. Students are expected to present their project in the style of a conference talk to the staff or at a formal conference. The internal supervisor and the head of the department grade the thesis according to eight generally acknowledged scientific criteria.

Literatuur

Not applicable.

Overige informatie

Students are expected to have attended at least 10 colloquia before they can receive their thesis grade. They have to hand in the filled out colloquium card to the coordinator of the William James Graduate School.

Medical Neuroscience and Neuroanatomy

| | |
|----------------|--------------------|
| Vakcode | P_MMEDINN (815124) |
| Periode | Periode 1+2 |
| Credits | 6.0 |

| | |
|----------------------|---|
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | prof. dr. E.J.A. Scherder |
| Examinator | prof. dr. E.J.A. Scherder |
| Docent(en) | prof. dr. E.J.A. Scherder |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

This course provides the medical background in neurology and anatomy for clinical applications of neuroscience. Key fields covered by this course are the structure, functions and dysfunctions of:

- the human brain, with special focus on
- the central versus the peripheral nervous system
- the brainstem, the spinal cord
- vasculature, blood flow and cerebrospinal fluid circulation
- autonomic, neuroendocrine, and regulatory functions
- higher neural functions

After completing the course the student is supposed to have the knowledge and the skills to examine the functions and diagnose dysfunctions in the central and peripheral nervous system.

Onderwijsvorm

Lectures and practical assignments

Toetsvorm

Acquired knowledge and skills of the student will be tested by means of:

- Exam (open questions)
- Satisfactory completion of the practical anatomical sessions.

Partial grades are only valid during the study year in which the grade has been achieved.

Literatuur

Neuroanatomy through Clinical cases. Author: Hal Blumenfeld. Second Edition. Publisher: Sinauer. ISBN978-0-87893-058-6.

Memory and Memory Disorders

| | |
|----------------------|---|
| Vakcode | P_MMEDRY (815102) |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. R.J. Godijn |
| Examinator | dr. R.J. Godijn |
| Docent(en) | dr. R.J. Godijn |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

The course aims to give students an overview of memory at the cognitive and neurophysiological level, and to give students the background to interpret memory disorders in patients with brain damage.

Inhoud vak

The course focuses on various approaches in the study of human memory and memory disorders. We will discuss working memory, encoding-retrieval interactions, interference and forgetting implicit memory, and the brain substrate of memory. We will also discuss clinical testing of memory, and memory loss after local brain damage, dementia, and other conditions.

Onderwijsvorm

12 two- hour lectures and workshops, assignments and oral presentations.

Toetsvorm

Exam, assignments, and presentation.

Literatuur

Various papers, to be announced via Blackboard.

Overige informatie

This course will be lectured once every two years; the course will be NOT be lectured in 2013-14, but will be lectured in 2014/15.

Neural Models of Cognitive Processes

| | |
|----------------------|---|
| Vakcode | P_MNEUMOD (815051) |
| Periode | Periode 5 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. M. Meeter |
| Examinator | dr. M. Meeter |
| Docent(en) | W. Kruijne |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

Computational models are an important feature in cognitive neuroscience. When used appropriately, they allow for the integration of findings from a wide range of experiments, as well as detailed predictions. As opposed to many theories, they are rich in detail and allow for a mechanistic view on how the brain operates.

In this course, you will:

- > Learn about how models can enrich the field of cognitive neuroscience
- > Gain insight into different types of models, their strengths and weaknesses
- > Obtain in-depth knowledge about several specific models
- > Get hands-on experience with a variety of models

Inhoud vak

The course starts with a general introduction on models within the field of cognitive neuroscience, and getting familiar with the software used in the practical sessions. Then, you will learn about some prototypical neural models, and their applications within (and beyond) your field. The practical sessions will have you explore the inner workings of these models, by means of exercises and essay questions.

In the second half of the course, you will learn about a wider variety of models, with different levels of abstraction. Furthermore, you will dive into (and present) articles where models, inspired by the prototypical ones discussed in the lectures, have been applied in cognitive neuroscience.

Onderwijsvorm

Lectures and discussion, computer tutorial and practicals, one oral presentation.

Toetsvorm

Grades are based on a weighted average of performance on a final exam, the oral presentation and the practical sessions.

Literatuur

articles, tutorials and other reading material on blackboard

Overige informatie

Period: 2 (in 13-14, not in 14-15)

Neuropsychological Dysfunctioning in Psychiatric Disorders

| | |
|----------------------|--|
| Vakcode | P_MNDPD () |
| Periode | Periode 1 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. H. van Ewijk |
| Examinator | dr. H. van Ewijk |
| Docent(en) | prof. dr. A.C. Krabbendam, dr. H. van Ewijk, T.S. Schweizer, drs. J.C. Wijmans |
| Lesmethode(n) | Hoorcollege |
| Niveau | 500 |

Doel vak

Understanding potential factors underlying neuropsychological dysfunctioning in different psychiatric disorders by looking at the neuroanatomical, neuroendocrine, and/or neuropharmacological basis. Obtaining knowledge of neuroscientific and behavioural interventions restoring psychological functioning.

Inhoud vak

Studying psychiatric disorders is a great way to investigate neuropsychological functioning, since psychiatric disorders are often associated with deficits in one or more neuropsychological functions. Both psychiatry and (neuro)psychology benefit from research in this area: on the one hand, investigating neuropsychological dysfunctioning can be very useful for diagnostic purposes and might help elucidate the

often heterogeneous character of a mental disorder. On the other hand, it can enlarge our knowledge of the brain regions involved in different psychiatric disorders and in specific cognitive disturbances.

The course consists of a series of lectures, in which each lecture covers a specific psychiatric disorder (such as eating disorders, Schizophrenia, or ADHD) from a neuroscience perspective. Each lecture will cover current knowledge about the disorder from different angles, such as neuropsychology, neuroimaging, neurophysiology and/or neuropharmacology. Furthermore, connections will be made between these different angles (e.g. 'is there a specific brain network implicated in the pathophysiology of this disorder', or 'how is the neurophysiology connected to the behavioural symptoms?').

Basic knowledge of psychiatry, cognitive neuropsychology and neuropharmacology is required.

Onderwijsvorm

Guest lectures

Toetsvorm

Exam

Literatuur

Scientific papers (will be provided during the course)

Overige informatie

Basic knowledge of psychiatry, cognitive neuropsychology and neuropharmacology is required.

Neuroscience and Education

| | |
|----------------------|---|
| Vakcode | P_MNEURED () |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. N.M. van Atteveldt |
| Examinator | dr. N.M. van Atteveldt |
| Docent(en) | drs. A.M. Boschloo, prof. dr. A.C. Krabbendam |
| Lesmethode(n) | Hoorcollege |

Doel vak

The aim of the course Neuroscience and Education is to provide students with the knowledge and skills necessary to evaluate and conduct research at the interface between neuroscience and education.

Inhoud vak

Many scientists, policymakers and teachers share the belief that knowledge of the brain is relevant to educational practice. Yet, implementing neuroscientific findings in the classroom is by no means straightforward. This course will focus on the interdisciplinary knowledge and skills needed to integrate neuroscientific and educational approaches and to translate neuroscientific research to educational practice. Students will learn how to integrate diverse methodological approaches, ranging from the highly controlled laboratory

experiments typical to the cognitive neuroscience approach, to the qualitative approaches used in the social sciences. During the whole course, students are encouraged to critically reflect on the current enthusiasm for a brain-based education. In this context, the course will specifically discuss the proliferation of neuromyths and the ethical issues arising from the neuroeducational approach.

Onderwijsvorm

Lectures and tutorials

Toetsvorm

Written exam with open-end questions (50%); research proposal (50%).

Literatuur

A selection of relevant articles, to be announced.

Overige informatie

This course will be lectured once every two years; the course will be NOT be lectured in 2013-14, but will be lectured in 2014-15.

Perception

| | |
|----------------------|---|
| Vakcode | P_MPERCEP (815047) |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. W. Donk |
| Examinator | dr. W. Donk |
| Docent(en) | dr. W. Donk |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

To familiarize students with various approaches to studying perception.

Inhoud vak

Introduction to the fundamental principles of perception. Physiological, psychophysical and cognitive approaches to visual, auditory and tactile perception are treated. Is perception purely a registration of the outside world? Which processes and representations underlie conscious and unconscious perception? What methods can we use to find out?

Onderwijsvorm

Lectures, literature study

Toetsvorm

Written examination: open end questions

Literatuur

Goldstein, E.B. Sensation and Perception. 8th Edition. London: Wadsworth.

Selected readings (to be announced in class)

Practical Skills for Researchers

| | |
|----------------------|---|
| Vakcode | P_MPRACSK () |
| Periode | Periode 4+5+6 |
| Credits | 18.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. S.A. Los |
| Examinator | dr. S.A. Los |
| Docent(en) | dr. S.A. Los, dr. J.B. Deijen, dr. M.V. Milders |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

Make students familiar with methodological issues in cognitive neuropsychology and provide them with necessary practical skills and experience regarding the conduct of research, writing, and presenting.

Inhoud vak

The course aims at teaching students general skills needed for doing research in cognitive neuropsychology. In lectures students will be familiarized with the principles underlying all phases of the research process in cognitive neuropsychology. This includes hypothesis forming, design planning, neuropsychological testing, and writing. Students will practice this knowledge in a research internship at the departments Cognitive Psychology or Clinical Neuropsychology. After completing their internship, students will disseminate the results both in a research report and an oral presentation.

Onderwijsvorm

Lectures and practical.

Toetsvorm

Midterm tests (15%), internship (20%), writing samples (50%), and presentations (15%).

Literatuur

Book chapters, will be made available on Blackboard.

Programming for Psychologists

| | |
|----------------------|---|
| Vakcode | P_MPROPSY (815120) |
| Periode | Periode 1 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. D.B.B. Schreij |
| Examinator | dr. D.B.B. Schreij |
| Docent(en) | dr. D.B.B. Schreij |
| Lesmethode(n) | Hoorcollege, Practicum |
| Niveau | 400 |

Doel vak

Acquire programming skills and use them to build your own experiments.
Learn the intricacies of experimental design.

Inhoud vak

You will learn how to design psychological experiments and how to implement these using the OpenSesame software package and the Python programming language. Although you will mainly be working with OpenSesame, which is specifically designed for constructing experiments, this course will also address general programming principles that will facilitate the learning of other programming languages in the future. We will furthermore look at how to efficiently design behavioral experiments, with the focus on randomization procedures, how to present visual and auditory stimuli, and on how to record responses of participants.

Onderwijsvorm

6 x 1 hour lecture, 12 x 4 hours practicals (compulsory), assignments (twice a week).

Toetsvorm

Of the 12 assignments, at least 8 need to be marked 6 or higher. At the end there will be an exam consisting of essay questions and programming assignments. You are allowed to bring your book and any other material.

Literatuur

Online documentation.

Review Paper

| | |
|--------------------|---|
| Vakcode | P_MREVPAP (815104) |
| Periode | Ac. Jaar (september) |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. M. Meeter |
| Examinator | dr. M. Meeter |
| Niveau | 500 |

Doel vak

To write a current literature review that covers an open issue in clinical or cognitive (neuro)psychology.

Inhoud vak

The review paper is a literature review written by the student under supervision of a member of the department of Clinical Neuropsychology or the department of Cognitive Psychology. Students may write a review on the basis of a self-selected topic provided that they find a member of the department willing to supervise the writing of the paper.

The topic must be narrow enough for the students to cover the literature within the designed period, but must be broad enough so that something is gained from writing a review, and must be of current interest in the literature.

-The review must be written at such level that it could be published in an academic journal

Onderwijsvorm

Students will be individually monitored and instructed by their supervisor in writing a literature review. Further guidelines are given on the blackboard site 'Master Thesis Cognitive Neuropsychology'

Toetsvorm

The literature review is evaluated on the basis of the quality of paper and is graded by the supervisor.

Literatuur

Depends on the topic of research.

Overige informatie

The supervisor for the review paper cannot also be a thesis supervisor. The topic of the review may not be the same as the topic of the review written in PSR.

Seminar Attention

| | |
|----------------------|---|
| Vakcode | P_MSEMATT (815100) |
| Periode | Periode 5 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | prof. dr. J.L. Theeuwes |
| Examinator | prof. dr. J.L. Theeuwes |
| Docent(en) | prof. dr. J.L. Theeuwes |
| Lesmethode(n) | Hoorcollege |
| Niveau | 400 |

Doel vak

To learn how to interpret and analyze theories and findings on attention and eye-movements. Learn how to set up experiments. Learn how to present and to write an essay.

Inhoud vak

The format of the seminar will be a discussion of one or two target articles, and student presentations, each week. Target articles for each week will be "classic" articles representing early and/or important studies on a specific topic or recent new papers in attention and eye movements. For the presentations, each student has to present the main findings of the target article for that week and is required to find a recent paper on the topic covered by the target article. Students have to prepare a 20 minute oral presentation in Microsoft Powerpoint. The rest of the class will be spent discussing the target articles and their relationship to the presented papers. Each student will give two presentations. The presentation will determine 30% of the course grade for each student. The target papers will be available on the course website and accessible via blackboard. One week after the last class, each student will submit a final paper (up to 8 pages, 12 pt. font, double spaced) on one of the topics covered in class. The paper will consist of a brief review of (at least) 6 research papers (including those already covered on that topic in class) and a proposal for a new

experiment. The paper will be worth 40%. Each class all students have to turn in a sheet of paper with a short question/remark about one of the papers discussed during that class (30% of the grade). Students will receive an introduction into the arts of oral presenting and of writing an essay as a preparation to the assignments.

Onderwijsvorm

Lectures and practical assignments.

Toetsvorm

Student presentation (30%), and writing a paper (40%) and sheet of paper with a short question/remark about one of the papers discussed (30%). Students are required to be present during all meetings. Attending the class is required.

Literatuur

Articles.

Seminar Cognitive Neuroscience

| | |
|----------------------|---|
| Vakcode | P_MSEMCNS (815098) |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. A.V. Belopolskiy |
| Examinator | dr. A.V. Belopolskiy |
| Docent(en) | dr. A.V. Belopolskiy |
| Lesmethode(n) | Hoorcollege |
| Niveau | 500 |

Doel vak

To extend students' knowledge in the field of cognitive and clinical neuroscience.

Inhoud vak

Over the last two decennia, scientific research in the field of cognitive neuroscience has led to fundamental new insights in the relation between brain function and behavior. Research is ongoing, and in many cases, the latest insights have not yet traversed their ways down into the regular textbooks. This seminar offers students the possibility to discuss state of the art research. The latest insights into topics such as working memory, multisensory perception, and the mirror neuron system will be covered. The seminar will also cover important questions regarding legal and ethical aspects of cognitive and clinical neuroscience research.

Onderwijsvorm

Lectures, literature study, oral presentations and discussions.

Toetsvorm

Oral presentation, contribution to discussion, and a review paper.

Literatuur

Research papers to be announced.

Overige informatie

The requirement to participate is the completion of the basic Cognitive Neuroscience and Neuropsychology course. Alternatively, students may study the required literature by self-study. You need to contact the professor of Seminar Cognitive Neuroscience beforehand. Before you can enter the Seminar, you will need to pass an oral exam with the professor. Note that it is your own responsibility to contact the professor, study the literature and make an appointment for the oral exam.

Thesis Proposal RMCNP

| | |
|----------------------|---|
| Vakcode | P_MTHPROP () |
| Periode | Periode 3 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. R.J. Godijn |
| Examinator | dr. R.J. Godijn |
| Docent(en) | dr. R.J. Godijn |
| Lesmethode(n) | Hoorcollege |
| Niveau | 500 |

Doel vak

To learn to write a grant proposal, to learn to defend it in public

Inhoud vak

Students write up a proposal for their thesis research, in the format of a grant proposal (an NWO grant will be used as template). They defend this proposal in front of a "committee" consisting of staff members, with fellow students in the audience.

Onderwijsvorm

2 plenary lectures on "how to" and to check progress, individual mentorship by future internal thesis supervisor.

Toetsvorm

70% written proposal, 30% oral defense.

Thinking and Deciding

| | |
|----------------------|---|
| Vakcode | P_MTHIDEC (815049) |
| Periode | Periode 2 |
| Credits | 6.0 |
| Voertaal | Engels |
| Faculteit | Faculteit der Psychologie en Pedagogiek |
| Coördinator | dr. M. Meeter |
| Examinator | dr. M. Meeter |
| Docent(en) | L. Zwaan |
| Lesmethode(n) | Hoorcollege |

Doel vak

Explaining and providing understanding of theories, research methods and practical aspects about human judgment, rational thinking, dilemmas and choices.

Inhoud vak

Why do we make certain decisions? What is rational thinking, and what keeps us from it? How can we improve our thinking and decision processes? How do we reason and choose in uncertain (risk) situations? What is the influence of (moral) beliefs and emotions?

Onderwijsvorm

Lectures, literature study, oral presentations and discussion.

Toetsvorm

Oral presentation, contribution to discussion, and a review paper.

Literatuur

A selection of articles and book chapters.