

Master's Programme

## Master Specialisation Developmental Psychology

Faculty of Psychology and Neuroscience

### Infancy

#### Full course description

In no other period during our development do our brain and behaviour change so fundamentally and quickly as they do during infancy. This poses particular methodological constraints on the design of experiments and the selection of participants, whose ages are typically expressed in weeks. An additional challenge in infancy research is the limitation posed on communication. Questioning and instructions are of no use in infancy research and so there is reliance on indirect measurement methods like habituation paradigms or brain imaging methods. Nevertheless, many fascinating findings have emerged in recent years concerning often unexpected cognitive capacities of infants.

The course commences by addressing specific problems in infancy research and covers the methods used to meet or resolve these problems. Next, biological and behavioural aspects of pre- and postnatal development are discussed, in particular concerning their consequences for later cognitive development. The study of object recognition and object permanence is shown to play a fundamental role in cognitive development during infancy. Individual differences and critical periods are illustrated by a number of developmental disorders. Finally, the early development of social cognition and consciousness is addressed.

#### Course objectives

Knowledge of: Biological and psychological development from conception to four years of age, methods and techniques in infant research.

PSY4031

Period 1

4 Sep 2017

27 Oct 2017

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

- [J.E.A. Stauder](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

## Perception, Attention and Motor Development

### Full course description

Although perception, attention and motor function undergo the most spectacular changes during infancy, development proceeds throughout the course of an individual's entire lifespan. In the course, students will become acquainted with the latest theories and experimental findings related to the development of these functions, with an emphasis on biological and neuropsychological models. Knowledge about the way in which brain development is linked to the development of specific cognitive functions is crucial for determining the constraints of development theories. During the course, it will become evident to students that perception, attention and motor development are closely related to each other. Developmental disorders in perception, attention or motor functions can have divergent consequences, depending on the age at which they start. For instance, being born deaf or of becoming deaf at a later age has different consequences due to taking place in different brain development stages. During the course, a number of common childhood disorders associated with aberrant development of perception, attention or motor functions will be discussed. Also here, the focus is on neuropsychological theories on the origins of these developments. Specific topics are the development of 'bottom-up' versus 'top-down' attention processes and the role of eye-movements, the development of executive functions and frontal cortex, the development of perceptual-motor functions, ADHD, Gilles de la Tourette and possible intervention and rehabilitation methods (both pharmacological as well as cognitive).

### Course objectives

Knowledge of: Life-span cognitive development, neurobiological theories on cognitive development, constructivism, maturationalism, visual perception development, eye-movement development, attention development, executive control development, frontal lobe development, motor control development, development of action-perception integration, structural brain development, ADHD, Gilles de la Tourette, fronto-striatal circuits, dopaminergic and noradrenergic hypothesis for ADHD.

PSY4032

Period 1

4 Sep 2017

27 Oct 2017

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

- [L.M. Jonkman](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

Childhood, adolescence, Attention, visual perception, executive control, motor development, ADHD

Faculty of Psychology and Neuroscience

## **Practical Training: Measuring Attention and Executive Functions in Behavioural Paradigms**

### **Full course description**

Students will perform several attention and executive function tasks that are frequently applied in clinical and non-clinical developmental settings. Already gathered data from children will be provided to the students so that they can practice with performing statistical analyses. Each student formulates a research question based on the literature. All research questions will focus on themes within the field of childhood development of attention and executive control and associated disorders such as Autism Spectrum Disorder or ADHD. During the course, students will present and discuss their research questions and findings in both group meetings and in a written report.

### **Course objectives**

Knowledge of: Experimental paradigms to measure attention and executive functions, how to define a valid research question, apply statistics to developmental data and interpret results, write a research paper.

PSY4033

Period 1

4 Sep 2017

27 Oct 2017

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [L.M. Jonkman](#)

Teaching methods:

Assignment(s), Paper(s), Presentation(s), Research, Skills, Training(s), Work in subgroups

Assessment methods:

Attendance, Final paper

Keywords:

Attention, executive functions, childhood development, experimental psychology, Writing

Faculty of Psychology and Neuroscience

## **Practical Training: EEG and ERP**

## Full course description

Electroencephalography (EEG) and Event Related Potentials (ERP) offer a combination of precise measurements for the time course of brain processes. These are low cost, non-invasive measurements and are widely available. For these reasons they make a unique contribution to cognitive neuroscience. Scientific interest in EEG and ERP is growing, and results have been increasingly integrated with other neuro-imaging techniques during the last few decades.

Lectures and basic literature provide an introduction for students to the basics of EEG and ERP research, EEG and ERP terminology and the possibilities and limitations of EEG and ERP. For a Midterm paper students study an empirical data article from the literature and answer questions about its EEG and ERP methods and interpretation based on lectures, basic literature and other sources. Students also study practical measurement issues, such as electrode placement and types of artefacts. Finally, students must interpret the resulting data. Successful measurement requires an understanding of the basics of EEG and ERP signal analysis techniques, such as artefact management, spectral analysis, filtering, ERP averaging, time-frequency analysis etc. Students also receive hands-on training in smaller groups in running an ERP experiment, including electrode application, minimising artefacts, and health and safety in the lab. A number of simple experimental paradigms will be used that provide interesting and reliable results. Data processing will include a number of common EEG analyses, e.g. analyses in the time and frequency domain.

## Course objectives

Knowledge of: Basic EEG/ERP paradigms, EEG recording systems, measurement settings, electrode application, data quality verification, analogue-digital conversion, basic EEG / ERP components, interpreting topographical plots, neural origins of EEG, time domain analysis, frequency domain analysis, time-frequency analysis, filtering, ocular artefact control, muscle artefact control, choice of reference, re-referencing.

PSY4034

Period 1

4 Sep 2017

27 Oct 2017

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [F.T.Y. Smulders](#)

Teaching methods:

Lecture(s), Paper(s), Skills, Training(s), Work in subgroups

Assessment methods:

Attendance, Final paper

Keywords:

Electroencephalography (EEG), Event-related potentials (ERP), electrophysiology, measurement, analysis of brain potentials

Faculty of Psychology and Neuroscience

# Development of Cognition and Language

## Full course description

In this course typical and atypical childhood development of higher order cognitive functions such as memory, language and reading, number processing and arithmetic will be discussed. These higher order cognitive functions are crucial for daily functioning. Two questions will be central in the study of these topics: which changes take place as a child gets older and how do these changes occur? We will approach the how question by studying both neurobiological and environmental factors influencing typical or atypical development. Especially in the case of the development of highly complex skills such as reading and arithmetic many cascaded processes are involved spanning a long period of time. The study of these processes and their basis in the brain is complex and addresses many methodological issues that will be also discussed in the course. Specific topics dealt with are development of working memory, long-term memory, number representation, arithmetic, word learning, reading, and intelligence. Atypical development of these functions, as for instance in dyslexia and dyscalculia will also be studied.

## Course objectives

Knowledge of: Brain structural development and research methods used in developmental research, working memory development, long-term explicit memory development, language development, development of reading and bilingualism, development of number sense and arithmetic, development of general intellectual abilities, dyslexia, dyscalculia.

PSY4035

Period 2

30 Oct 2017

22 Dec 2017

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

- [F.C.L. Donkers](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

cognitive development, brain development, intellectual development, Memory, word-learning, bilingualism, number knowledge, arithmetic

Faculty of Psychology and Neuroscience

## Social Emotional Development

## Full course description

Emotions are an essential part of our life. In every generation, humans develop the skills to express subtle emotions and learn to recognize and understand emotions, moods and the thoughts of others. They enter into extremely complex social and emotional interactions with other people. This course will discuss scientific studies about how social emotional life develops. Social emotional development will be studied at four levels. Firstly on the genetic level: students will analyze the role of genes in social emotional development through the study of psychopathologies. Examples include the syndrome of Rett and Williams, autism and psychopathy. Secondly is the level of brain mechanisms (e.g. the role of structures like the amygdala in the development of social cognition). Thirdly is the neuropsychological level: How do cognitive functions (as represented in a theory of mind) and emotional expressions (like blushing) develop and how is their development mediated by brain structures? Lastly, is the level of evolutionary psychology: Why have specific developmental patterns been selected during the course of evolution? Since social emotional development is not only of theoretical interest, the course also deals with practical implications of theories about social emotional development.

## Course objectives

Knowledge of: Theories of development, cause and object of emotion; genetics; laws of Mendel; model of Ledoux; syndrome of Rett and Williams; imitation; mirror neurons; theory of mind, empathy, instrumental helping; altruism; theories of moral development, moral emotions; autism, extreme male brain; temperament; aggression, psychopathy.

PSY4036

Period 2

30 Oct 2017

22 Dec 2017

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

- [H.E. Smit](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

Theory of mind, empathy, moral development, autism, aggression, psychopathy

Faculty of Psychology and Neuroscience

## Practical Training: Psychological Tests

### Full course description

This practical training course is concerned with psychological tests which are used to assess

cognitive development and functioning of children at various ages. More specifically, students will learn basic skills for administering and interpreting mental capacity tests for children and will increase their reflection on these skills. For example, students can gain experience in administering the WISC and SON tests and in interpreting child behaviour using the Bayley Scales of Infant Development (Bayley-III-NL).

## Course objectives

Knowledge of: Administering and interpreting mental capacity tests.

PSY4037

Period 2

30 Oct 2017

22 Dec 2017

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [J.E.A. Stauder](#)

Teaching methods:

Assignment(s), Lecture(s), Paper(s), Skills

Assessment methods:

Final paper

Keywords:

Cognitive capacity tests, IQ tests, WISC, WPPSI, SON, Bayley-III

Internships

## Research Internship

Faculty of Psychology and Neuroscience

## Research Proposal

### Full course description

- The research proposal is drafted in preparation for the research internship. To ensure a timely process, PSY4074 is done in conjunction with PSY 4075, which serves to support the development of the research proposal and subsequent internship via assignments, workshops, and lectures that allow students to practice and develop the following skills: Conducting literature reviews
- Using Endnote
- Choosing a research design
- Selecting appropriate statistical methods
- Managing data and applying statistics
- Writing a research proposal using academic writing
- Providing peer feedback on a research proposals

- Understanding research ethics
- Applying for approval from the ERCPN
- Planning for their future career

## Course objectives

To produce a scientifically sound research proposal

To adequately prepare for a research internship

PSY4074

Year

1 Sep 2017

31 Aug 2018

[Print course description](#)

ECTS credits:

5.0

Instruction language:

English

Coordinator:

- [S. Stutterheim](#)

Teaching methods:

Assignment(s)

Assessment methods:

Final paper

Keywords:

Academic skills, Research skills, methods, statistics, Writing, Internship

Faculty of Psychology and Neuroscience

## Academic Skills

### Full course description

This module offers students an opportunity to practice and apply academic writing and research skills, and prepares students for their research internship. To achieve this, a series of assignments, workshops, and lectures will be scheduled in the 3rd period (four weeks). In addition, students will be encouraged to consider their future career. The following topics and activities will be covered:

- Conducting literature reviews
- Using Endnote
- Choosing a research design
- Selecting appropriate statistical methods
- Managing data and applying statistics
- Writing a research proposal using academic writing
- Providing peer feedback on a research proposals
- Understanding research ethics
- Applying for approval from the ERCPN
- Planning for their future career



## Course objectives

Knowledge of:

How to conduct literature reviews, using Endnote; how to select a research design and corresponding methods; how to write in academics; how to peer review; how to apply for ethics approval; how to produce an acceptable research proposal; career perspectives.

PSY4075

Period 3

8 Jan 2018

2 Feb 2018

[Print course description](#)

ECTS credits:

0.0

Instruction language:

English

Coordinator:

- [S. Stutterheim](#)

Teaching methods:

Lecture(s), Assignment(s), Skills

Assessment methods:

Attendance, Assignment

Keywords:

Academic skills, Research skills, methods, statistics, career skills, Writing, peer reviewing

Faculty of Psychology and Neuroscience

## Research Internship Graded

### Full course description

The second part of the one-year master's program (from period 3 onwards), is devoted to conducting a research internship that involves 1) writing of a research proposal, and preparing and planning of the research project, 2) conducting the research project, and 3) analyzing the results of the research project. This work will result in an individually written 4) master's thesis. Step 1 will be done in period 3, steps 2 to 4 from period 4 onwards.

The internship can be carried out at Maastricht University, at an external research institute or at other, more practically oriented institutions. In all cases, a student's research proposal and master's thesis will be evaluated by two assessors. At least one of these assessors is a staff member at the Faculty of Psychology and Neuroscience (FPN). The other assessor can be an external researcher. One of the assessors must hold a PhD, the other can be a PhD candidate.

Information about research internships offered by faculty members can be found on AskPsy > Curriculum > internships/ stages.

Each specialisation has its own internship coordinator:

Psychology and Law: Kim van Oorsouw,

Master Psychology Specialisation Developmental Psychology  
Phone (043) 38 84050, 40 Universiteitssingel East, Room 3.767,

Email: [k.vanoorsouw@maastrichtuniversity.nl](mailto:k.vanoorsouw@maastrichtuniversity.nl)

Health and Social Psychology:

Sandra Mulkens:

Phone (043) 38 84052, 40 Universiteitssingel East, Room 3.755, Email:  
s.mulkens@maastrichtuniversity.nl

Loes Kessels:

Phone (043) 3882105, 40 Universiteitssingel East, Room 4.747,

Email: lte.kessels@maastrichtuniversity.nl

Work and Social Psychology: Robert van Doorn,

Phone (043) 38 81926, 40 Universiteitssingel East, Room 4.731,

Email: r.vandoorn@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder,

Phone (043) 38 81933, 55 Oxfordlaan, Room 2.009,

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: Amanda Kaas,

Phone (043) 38 82172, 55 Oxfordlaan, Room 2.019,

Email: a.kaas@maastrichtuniversity.nl

Neuropsychology: Esther Keulers,

Phone (043) 38 82932, 40 Universiteitssingel East, Room 2.755, Email:  
esther.keulers@maastrichtuniversity.nl

## **Course objectives**

Knowledge of:

Conducting a supervised empirical research project and summarising this research in a master's thesis.

## Prerequisites

The Research Internship can only be started when at least 8 credits of the compulsory courses have been obtained of the modules offered in periods 1 and 2. Furthermore, the research proposal must be assessed as sufficient by both assessors and must be ethically approved before the start. In addition:

- Certain Research Internships may require that practical or skills training(s) have been completed.

PSY4078

Year

5 Feb 2018

31 Aug 2018

[Print course description](#)

ECTS credits:

10.0

Instruction language:

English

Coordinators:

- [G.C. Kraag](#)
- [A.A.N. Mulkens](#)

Teaching methods:

Assignment(s), Paper(s), Research, Skills, Working visit(s)

Assessment methods:

Attendance, Final paper, Observation, Participation

Keywords:

Academic skills, internship, research, Research proposal, master's thesis

Faculty of Psychology and Neuroscience

## Research Internship Ungraded

### Full course description

The second part of the one-year master's program (from period 3 onwards), is devoted to conducting a research internship that involves 1) writing of a research proposal, and preparing and planning of the research project, 2) conducting the research project, and 3) analyzing the results of the research project. This work will result in an individually written 4) master's thesis. Step 1 will be done in period 3, steps 2 to 4 from period 4 onwards.

The internship can be carried out at Maastricht University, at an external research institute or at other, more practically oriented institutions. In all cases, a student's research proposal and master's thesis will be evaluated by two assessors. At least one of these assessors is a staff member at the Faculty of Psychology and Neuroscience (FPN). The other assessor can be an external researcher. One of the assessors must hold a PhD, the other can be a PhD candidate.

Information about research internships offered by faculty members can be found on [AskPsy > Curriculum > internships/ stages](#).

## Master Psychology Specialisation Developmental Psychology

Each specialisation has its own internship coordinator:

Psychology and Law: Kim van Oorsouw,

Phone (043) 38 84050, 40 Universiteitssingel East, Room 3.767,

Email: k.vanoorsouw@maastrichtuniversity.nl

Health and Social Psychology:

Sandra Mulkens:

Phone (043) 38 84052, 40 Universiteitssingel East, Room 3.755, Email:  
s.mulkens@maastrichtuniversity.nl

Loes Kessels:

Phone (043) 3882105, 40 Universiteitssingel East, Room 4.747,

Email: lte.kessels@maastrichtuniversity.nl

Work and Social Psychology: Robert van Doorn,

Phone (043) 38 81926, 40 Universiteitssingel East, Room 4.731,

Email: r.vandoorn@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder,

Phone (043) 38 81933, 55 Oxfordlaan, Room 2.009,

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: Amanda Kaas,

Phone (043) 38 82172, 55 Oxfordlaan, Room 2.019,

Email: a.kaas@maastrichtuniversity.nl

Neuropsychology: Esther Keulers,

Phone (043) 38 82932, 40 Universiteitssingel East, Room 2.755, Email:  
esther.keulers@maastrichtuniversity.nl

## Course objectives

Knowledge of:

Conducting a supervised empirical research project and summarising this research in a master's thesis.

## Prerequisites

The Research Internship can only be started when at least 8 credits of the compulsory courses have been obtained of the modules offered in periods 1 and 2. Furthermore, the research proposal must be assessed as sufficient by both assessors and must be ethically approved before the start. In addition:

- Certain Research Internships may require that practical or skills training(s) have been completed.

PSY4079

Year

5 Feb 2018

31 Aug 2018

[Print course description](#)

ECTS credits:

15.0

Instruction language:

English

Coordinators:

- [G.C. Kraag](#)
- [A.A.N. Mulkens](#)

Teaching methods:

Assignment(s), Paper(s), Research, Skills, Working visit(s)

Assessment methods:

Attendance, Final paper, Observation, Participation

Keywords:

Academic skills, internship, research, Research proposal, master's thesis

Thesis

## Master's Thesis

Faculty of Psychology and Neuroscience

## Master's Thesis

### Full course description

The second part of the one-year master's program (from period 3 onwards), is devoted to conducting a research internship that involves 1) writing of a research proposal, and preparing and planning of the research project, 2) conducting the research project, and 3) analyzing the results of the research project. This work will result in an individually written 4) master's thesis. Step 1 will be

Master Psychology Specialisation Developmental Psychology  
done in period 3, steps 2 to 4 from period 4 onwards.

The internship can be carried out at Maastricht University, at an external research institute or at other, more practically oriented institutions. In all cases, a student's research proposal and master's thesis will be evaluated by two assessors. At least one of these assessors is a staff member at the Faculty of Psychology and Neuroscience (FPN). The other assessor can be an external researcher. One of the assessors must hold a PhD, the other can be a PhD candidate.

Information about research internships offered by faculty members can be found on AskPsy > Curriculum > internships/ stages.

Each specialisation has its own internship coordinator:

Psychology and Law: Kim van Oorsouw,

Phone (043) 38 84050, 40 Universiteitssingel East, Room 3.767,

Email: k.vanoorsouw@maastrichtuniversity.nl

Health and Social Psychology:

Sandra Mulkens:

Phone (043) 38 84052, 40 Universiteitssingel East, Room 3.755, Email:  
s.mulkens@maastrichtuniversity.nl

Loes Kessels:

Phone (043) 3882105, 40 Universiteitssingel East, Room 4.747,

Email: lte.kessels@maastrichtuniversity.nl

Work and Social Psychology: Robert van Doorn,

Phone (043) 38 81926, 40 Universiteitssingel East, Room 4.731,

Email: r.vandoorn@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder,

Phone (043) 38 81933, 55 Oxfordlaan, Room 2.009,

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: Amanda Kaas,

Phone (043) 38 82172, 55 Oxfordlaan, Room 2.019,

Email: a.kaas@maastrichtuniversity.nl

Neuropsychology: Esther Keulers,

Phone (043) 38 82932, 40 Universiteitssingel East, Room 2.755, Email:  
esther.keulers@maastrichtuniversity.nl

## Course objectives

Knowledge of: Conducting a supervised empirical research project and summarising this research in a master's thesis.

## Prerequisites

The Research Internship can only be started when at least 8 credits of the compulsory courses have been obtained of the modules offered in periods 1 and 2. Furthermore, the research proposal must be assessed as sufficient by both assessors and must be ethically approved before the start. In addition:

- Certain Research Internships may require that practical or skills training(s) have been completed.

PSY4091

Year

5 Feb 2018

31 Aug 2018

[Print course description](#)

ECTS credits:

10.0

Instruction language:

English

Coordinators:

- [R.R.A. van Doorn](#)
- [G.C. Kraag](#)
- [A.A.N. Mulkens](#)

Teaching methods:

Assignment(s), Paper(s), Research, Skills, Working visit(s)

Assessment methods:

Attendance, Final paper, Observation, Participation

Keywords:

Academic skills, Internship, Research, Research proposal, master's thesis