

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

- understand the biological and psychological development from conception to four years of age;
- understand and being able to apply methods and techniques in infancy research like indirect measures as habituation, facial expression, expectancy violation, sucking activity and heart rate changes, but also direct recordings of brain activity (EEG, ERP, MEG) and their hemodynamic correlates (f-MRI, NIRS);
- understanding the periods in prenatal development and the effect of teratogens;
- understanding the early development of processes like visual illusions, face recognition, cortical inhibition, mental representation, language and social cognition;
- understanding the underlying mechanisms in developmental conditions like Fetal Alcohol Syndrome, prematurity, dyslexia, cerebral palsy, autism.

PSY4031

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

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

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

critical periods, object permanence, face processing, joint attention

Faculty of Psychology and Neuroscience

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, autism, ADHD, Gilles de la Tourette and possible intervention and rehabilitation methods (both pharmacological as well as cognitive).

Course objectives

Students:

- are able to explain, reproduce and differentiate between different cognitive/neurobiological theories central to the life-span development of visual perception and eye-movements, attention and executive control, motor control and action-perception integration;
- are able to apply this theoretical knowledge to cases of atypical development in perception, attention or motor functioning, such as autism, ADHD and Gilles de la Tourette;
- can describe and discuss theories and research on the aetiology of childhood psychological/psychiatric disorders related to deficits in attention, perception and motor skills like autism, ADHD and Gilles de la Tourette with a focus on the influence of environmental, personal and biological (genetic/psychopharmacological /brain) factors;
- will be able to describe/explain therapies/interventions (cognitive/behavioural or psychopharmacological) and their effectiveness in ADHD/Gilles de la Tourette;

- will be able to better understand, analyse and evaluate research and research methods and paradigms (experimental tasks and neuropsychological/diagnostic instruments) used in the field of the typical and atypical neurocognitive development of perception, attention and motor skills.

PSY4032

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

4.0

Instruction language:

English

Coordinator:

- [J.C. Stapel](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

Childhood, adolescence, Attention, visual perception, executive control, motor development, ADHD, Gilles de la Tourette

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

Students:

- can read, interpret and reflect upon papers reviewing theories and experimental studies in the field of typical or atypical development of attention and executive function;
- are able to recognize, understand and differentiate between different experimental paradigms and neuropsychological measures to assess cognitive functions (attention and executive functions) in children and adults;
- can formulate a relevant and innovative research question based upon a review of the relevant

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literature in the field of study;

- can select the appropriate research design and statistical analyses fitting their research question;
- can apply statistics to developmental data and interpret results;
- can write/report findings in the format of a research paper.

PSY4033

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [L.M. Jonkman](#)

Teaching methods:

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

Assessment methods:

Attendance, Final paper

Keywords:

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

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 also be 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

At the end of the course students are able to:

- compare and contrast (advantages and disadvantages) the most used brain imaging methods and research designs in developmental research;
- explain the most important brain structural and functional changes in the domain of: working

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memory development, long-term explicit memory development, language development, development of reading and bilingualism, development of number sense and arithmetic, and development of general intellectual abilities;

- clarify what goes wrong in developmental disorders such as dyslexia and dyscalculia and explain possible interventions.

PSY4035

Period 2

31 Oct 2022

23 Dec 2022

[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:

developmental research methods, cognitive development, brain development, Memory, word-learning, bilingualism, number knowledge, arithmetic, dyslexia, dyscalculia

Faculty of Psychology and Neuroscience

Social Emotional Development

Full course description

Emotions are an essential part of our life and humans develop the skills to express subtle emotions and learn to recognize and understand emotions, moods and thoughts of others. They enter into extremely complex social and emotional interactions with other people. In the course, students will become acquainted with the latest theories and experimental findings related to human socio-emotional development, with an emphasis on biological and neuropsychological models. 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. 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 develop and how is their development mediated by brain structures? 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

Students:

- Gain insight into different cognitive/neurobiological theories central to typical life-span socio-

emotional development

- Will be able to explain the interactive role that environmental (peer influences/parenting-style/attachment), personal (temperament/personality) and neurobiological (genes and brain development) factors play in the typical and atypical childhood and adolescent socio-emotional development
- Will gain knowledge about the development and measurement of internalising and externalising psychopathology and the role of personal, environmental and (neuro)biological factors.
- Will get acquainted with topics such as: moral development and antisocial behavior; empathy/theory of mind development and social understanding and linked psychiatric disorders (e.g. autism)/psychopathology

PSY4036

Period 2

31 Oct 2022

23 Dec 2022

[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:

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

- being able to administer mental capacity tests like the Bayley-III, SON and WISC (testing a child);
- being able to understand and interpret the Bayley-III;
- being able to communicate test findings to a lay person (lawyer).

PSY4037

Period 1

5 Sep 2022

28 Oct 2022

[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

Faculty of Psychology and Neuroscience

Practical Training: EEG and ERP

Full course description

Electroencephalography (EEG) can measure oscillatory electrical brain activity and Event Related Potentials (ERP) allow for precise measurement of the time course of brain processes. They are low cost, non-invasive methods 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 methods 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 will 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 training 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

Students are able to understand:

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

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

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

Teaching methods:

Lecture(s), Skills, Work in subgroups

Assessment methods:

Attendance, Final paper, Assignment

Keywords:

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

Internships

Research Internship

Faculty of Psychology and Neuroscience

Research Proposal

Full course description

The research proposal is closely connected to PSY4075 (academic skills) and PSY4957 (mentor program 1y FPN masters) and prepares students for their internship and master's thesis.

In this course, the research proposal is drafted in preparation for the research internship. To ensure a timely process, PSY4074 is done in conjunction with PSY4075, since PSY4075 serves to support the development of the research proposal and subsequent execution of the internship via assignments, workshops, and lectures that allow students to practice and develop their academic skills.

The research proposal describes what you will investigate, why it is important, and how you will do the research. The format of a research proposal varies between (sub)fields, but most proposals should contain at least these elements: Cover page, Introduction, Literature Review (incl background, relevance, and research question), Research design and methods, Reference list, and a Timeline/planning. Students discuss the content of the proposal with their internship supervisors (preferably 2-3 months prior to the official start of the internship).

This module is not applicable for the Master in Work & Organizational Psychology, and (the

Course objectives

- to produce a scientifically sound research proposal;
- to adequately prepare for a research internship.

PSY4074

Year

1 Sep 2022

31 Aug 2023

[Print course description](#)

ECTS credits:

5.0

Instruction language:

English

Coordinator:

- [G.A. ten Hoor](#)

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

The Academic Skills course is closely connected to the research proposal and the mentor program for the 1y masters and prepares students for their internship and thesis. This module offers students an opportunity to practice and apply academic writing and research skills, and prepares students for their research internship (including the writing of their research proposal and thesis). To achieve this, a series of assignments, workshops, and lectures is offered in the 3rd period (four weeks). In addition, students will be encouraged to consider their future career (inc. what their interests are/what career(s) they would like to pursue).

This module is not applicable for the Master in Work & Organizational Psychology, and (the subsample of) students of the Master Neuropsychology that complete a clinical internship.

The Academic Skills course has to be completed within 6 weeks after the start of a students' research internship (so no need to have this finished at the end of period 3). To make sure that students can pass this course when delaying (the start of) their internship this course is open during the entire academic year. For most students, however, the academic skills course is focused on period 3 (January).

Course objectives

Intended learning outcomes (ILO's) are tailored to the individual student and depend on the individual motivations and needs for their research internship. ILO's are related to:

1. The (general) mandatory skills that students followed as part of the assessment in PSY4075.
2. The additional academic skills deemed necessary by internship supervisor.
3. Additional (online) skills courses and/or experiences that students may have followed or obtained additionally to point 1 and 2 out of interest/personal growth.

Mandatory ILO's are:

- students know what the criteria/guidelines are for writing a research proposal;
- students know what transparency in science is (including data management and research ethics);
- students recognize ethical aspects of conducting research and are able to complete an ethics application.

Additional ILO's (if skills are not yet mastered) are:

- students are able to execute a literature review;
- students are able to use a reference manager;
- students are able to select a research design and corresponding methods for a research project;
- students understand basic statistical techniques;
- students can explain characteristics of academic writing and are able to implement and apply that knowledge to the writing of a research proposal.

(this list is just an example, and will be updated each year, based on student and supervisor needs)

PSY4075

Year

1 Sep 2022

31 Aug 2023

[Print course description](#)

ECTS credits:

0.0

Instruction language:

English

Coordinator:

- [G.A. ten Hoor](#)

Teaching methods:

Assignment(s), Skills, Lecture(s)

Assessment methods:

Attendance, Assignment

Keywords:

Academic skills, Research skills, methods, statistics, career skills, Writing, peer reviewing, ethics in research

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:

Legal Psychology: Kim van Oorsouw

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

Email: k.vanoorsouw@maastrichtuniversity.nl

Health and Social Psychology: Ghislaine Schyns

Phone (043) 38 84523, 40 Universiteitssingel East, Room 4.777a

Email: ghislaine.schyns@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder

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

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: to be announced

Neuropsychology:

Research internships: Michael Schwartz

Phone (043) 38 82802

Email: michael.schwartz@maastrichtuniversity.nl

Clinical internship: Ieke Winkens

Phone: (043) 38 84512,

Master Psychology Specialisation Developmental Psychology

Email: I.winkens@maastrichtuniversity.nl

Location: Universiteitssingel 40, East

This module is not applicable for students of the Master Neuropsychology that attend a clinical internship.

Course objectives

Students are able to :

- conduct a supervised empirical research project and summarize 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 of the data collection. In addition:

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

PSY4078

Year

6 Feb 2023

31 Aug 2023

[Print course description](#)

ECTS credits:

10.0

Instruction language:

English

Coordinator:

- [G.C. Kraag](#)

Teaching methods:

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

Assessment methods:

Attendance, Final paper, Participation, Observation

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

Master Psychology Specialisation Developmental Psychology

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.

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Email: ghislaine.schyns@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder

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

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: to be announced

Neuropsychology:

Research internships: Michael Schwartz

Phone (043) 38 82802

Email: michael.schwartz@maastrichtuniversity.nl

Clinical internship: Ieke Winkens

Phone: (043) 38 84512,

Email: I.winkens@maastrichtuniversity.nl

Location: Universiteitssingel 40, East

This module is not applicable for students of the Master Neuropsychology that attend a clinical internship.

Course objectives

Students are able to :

- conduct a supervised empirical research project and summarize 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 of the data collection. In addition:

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

PSY4079

Year

6 Feb 2023

31 Aug 2023

[Print course description](#)

ECTS credits:

15.0

Instruction language:

English

Coordinator:

- [G.C. Kraag](#)

Teaching methods:

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

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 done in period 3, steps 2 to 4 from period 4 onwards.

Master Psychology Specialisation Developmental Psychology

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.

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Email: ghislaine.schyns@maastrichtuniversity.nl

Developmental Psychology: Hans Stauder

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

Email: h.stauder@maastrichtuniversity.nl

Cognitive Neuroscience: to be announced

Neuropsychology:

Research internships: Michael Schwartz

Phone (043) 38 82802

Email: michael.schwartz@maastrichtuniversity.nl

Clinical internship: Ieke Winkens

Phone: (043) 38 84512,

Email: I.winkens@maastrichtuniversity.nl

Location: Universiteitssingel 40, East

This module is not applicable for students of the Master Neuropsychology that attend a clinical internship.

Course objectives

Students are able to :

- conduct a supervised empirical research project and summarize 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 of the data collection. In addition:

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

PSY4091

Year

6 Feb 2023

31 Aug 2023

[Print course description](#)

ECTS credits:

10.0

Instruction language:

English

Coordinator:

- [G.C. Kraag](#)

Teaching methods:

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

Assessment methods:

Attendance, Final paper, Observation, Participation

Keywords:

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