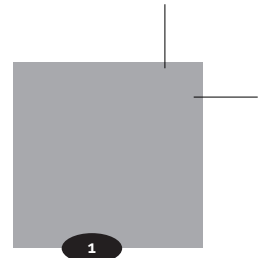


Faculty of Psychology  
Prospectus  
Research Master  
2006 • 2007

Universiteit Maastricht  
P.O. Box 616 6200 MD Maastricht  
The Netherlands

Faculty of Psychology (FdP) – Coordinating Faculty  
Faculty of Health Sciences (FdGW)  
Faculty of Medicine (FdG)



Prospectus Research Master 2006-2007

TIMETABLE 2006-2007

TIMETABLE 2006-2007

August						September					
week	31	32	33	34	35	35	36	37	38	39	
mo		7	14	21	28	4	11	18	25		
tu	1	8	15	22	29	5	12	19	26		
we	2	9	16	23	30	6	13	20	27		
th	3	10	17	24	31	7	14	21	28		
fr	4	11	18	25		1	8	15	22	29	
sa	5	12	19	26		2	9	16	23	30	
su	6	13	20	27		3	10	17	24		
October						November					
week	39	40	41	42	43	44	44	45	46	47	48
mo		2	9	16	23	30	6	13	20	27	
tu		3	10	17	24	31	7	14	21	28	
we		4	11	18	25		1	8	15	22	29
th		5	12	19	26		2	9	16	23	30
fr		6	13	20	27		3	10	17	24	
sa		7	14	21	28		4	11	18	25	
su	1	8	15	22	29		5	12	19	26	
December						January					
week	48	49	50	51	52	1	2	3	4	5	
mo		4	11	18	25	1	8	15	22	29	
tu		5	12	19	26	2	9	16	23	30	
we		6	13	20	27	3	10	17	24	31	
th		7	14	21	28	4	11	18	25		
fr	1	8	15	22	29	5	12	19	26		
sa	2	9	16	23	30	6	13	20	27		
su	3	10	17	24	31	7	14	21	28		
February						March					
week	5	6	7	8	9	9	10	11	12	13	
mo		5	12	19	26		5	12	19	26	
tu		6	13	20	27		6	13	20	27	
we		7	14	21	28		7	14	21	28	
th	1	8	15	22		1	8	15	22	29	
fr	2	9	16	23		2	9	16	23	30	
sa	3	10	17	24		3	10	17	24	31	
su	4	11	18	25		4	11	18	25		
April						May					
week	13	14	15	16	17	18	18	19	20	21	22
mo		2	9	16	23	30	7	14	21	28	
tu		3	10	17	24		1	8	15	22	29
we		4	11	18	25		2	9	16	23	30
th		5	12	19	26		3	10	17	24	31
fr		6	13	20	27		4	11	18	25	
sa		7	14	21	28		5	12	19	26	
su	1	8	15	22	29		6	13	20	27	
June						July					
week	22	23	24	25	26	26	27	28	29	30	31
mo		4	11	18	25	2	9	16	23	30	
tu		5	12	19	26	3	10	17	24	31	
we		6	13	20	27	4	11	18	25		
th		7	14	21	28	5	12	19	26		
fr	1	8	15	22	29	6	13	20	27		
sa	2	9	16	23	30	7	14	21	28		
su	3	10	17	24		1	8	15	22	29	

Agenda

04-09 till 08-09: Introduction week

25-12 till 05-01 Christmas Break, no lessons

19-02 till 23-02 Carnival, University closed

06-04 till 09-04 Easter Break, University closed  
 30-4 Queen's Birthday, University closed  
 17-05 till 18-05 Ascension, University closed  
 28-05 Whit Monday, University closed

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## Introductory Note

Central to our Faculty is the training of bachelor and master students in biological and cognitive psychology. Students will benefit from the comprehensiveness of our program as well as by having opportunities to conduct research with faculty members who are on the cutting edge of their fields.

Our psychology curriculum consists of a three-year Bachelor programme and two separate Masters programmes. The Regular Master programme comprises one-year tracks, while the Research Master involves a two-year programme.

Tracks within the Regular Master focus on exciting and practically relevant themes. In the domain of Applied Cognitive Psychology these are: *Experimental Health Psychology*, *Psychology and Law*, and *Work and Organisational Psychology*. In the domain of Biological Psychology, there are the following tracks: *Developmental Psychology*, *Cognitive Neuroscience*, and *Neuropsychology*.

The Research Masters specifically intends to train students who want to pursue a career as a researcher. Within this master, three specialisations are offered: *Cognitive Neuroimaging*, *Neuropsychology*, and *Abnormal Psychology*.


This prospectus describes in more detail the various courses that form the building blocks of our Master programme. Thus, a brief summary of the main issues in each course is given, but also more practical information (e.g., books, staff members who coordinate the courses and so on). In addition, all the important dates are included, such as the beginning and the end of the academic year, holidays, courses, tests and the internships. Furthermore, the prospectus provides an overview of the organisation of the faculty and the exam regulations. Finally, this prospectus may serve as a reference book for students and staff.

The faculty wishes all students an inspiring year!

Maastricht, July, 2005  
Prof. dr. Harald Merckelbach,  
Dean of the Faculty of Psychology

For more information, go to: <http://www.psychology.unimaas.nl/>





**Research Master Biopsychology &  
Psychopathology**

Prospectus Research Master 2006-2007

## GENERAL

The Research Master (MSc) programme 'Biopsychology & Psychopathology' is a two-year programme with specialisations in **Cognitive Neuroimaging, Neuropsychology, and Abnormal Psychology**. This interfaculty programme (Faculties of Psychology, Health Sciences, and Medicine) is designed for excellent students who want to continue their studies at a graduate school that prepares them for a career in the field of research. The programme is internationally oriented and all courses are given in English.

Students will become acquainted with the most important theories, models, techniques, and analytic methods in the domain of biopsychology and psychopathology and their respective specialisation.

It is deemed of utmost importance to provide students with a stimulating scientific environment that will enable them to develop as independent thinkers with a broad curiosity in the various aspects of the multidisciplinary research domain. The curriculum enables students to gain knowledge of cutting-edge scientific models and theories, while at the same time acquiring experience in a variety of research methods. Additionally, the programme stimulates scientific insight, a critical attitude, and active participation in the form of discussions, presentations, and written papers is required. Scientific growth is further promoted by intensive contact and collaboration with senior researchers and PhD students from the affiliated research

## THE EDUCATIONAL APPROACH: PROBLEM-BASED LEARNING (PBL)

The choice for Maastricht as a place to study also means a choice for an educational approach quite different to what is offered elsewhere. In Maastricht, education is based on the Problem-Based Learning (PBL) method. This is generally distinguished by the following features:

### 1. *Student-Centred*

As opposed to other traditional educational approaches, Problem-Based Learning is not centred around the transfer of information from the lecturer to the student, but rather based on the learning process of the student. Not the lecturer, but the student is central.

### 2. *Problems Form the Basis for Learning*

Problems form the starting point for the learning process. Students discuss these problems in depth in small groups. These problems are formulated in such a way that students are led to pose all types of explanatory questions; e.g. how did the phenomenon presented come about? Based on this discussion, students formulate the subject matter to be studied.

### 3. *Tutorial Groups*

Instruction takes place in tutorial groups of approximately 10 members who meet once or twice weekly. Individual cases are studied during these meetings based on



what has been taught in the courses. The tutorial groups are led by tutors who guide and monitor the learning process.

#### 4. *Self-motivation*

The problem-based approach and group discussions stimulate students to acquire relevant knowledge, insight and skills relatively independently. This emphasis on self-motivation is a core feature of Problem-Based Learning (PBL).

### **ORGANISATION OF THE FACULTY OF PSYCHOLOGY**

The following gives a survey of the way in which the Faculty of Psychology is organised. The most important governing body is the Faculty Board. The Faculty is supported by a small staff which is located at 40 Universiteitssingel, where one will also find the logistical, organisational and administrative support systems for the education programme. The Educational Office is the first place to go for the many practical questions and issues.

As a rule, the lecturers are employed within the Faculty of Psychology, but sometimes in other faculties, e.g. the Faculties of Health Sciences and Medicine.

The education programme is located at: 40 Universiteitssingel (Uns 40), 50 Universiteitssingel (Uns 50) and 1 Debyeplein (Deb 1).

#### **Faculty Board of the Faculty of Psychology**

##### *Composition*

Chairperson:	Harald Merckelbach (Dean), portfolio holder general affairs, extensions, personnel, emancipation affairs, internal and external relations, ICT, accommodation. Phone (043) 38 81945, 40 Universiteitssingel East, Room 5.735
Members:	Rainer Goebel, Vice-dean for research, Tel (043) 38 84014, 40 Universiteitssingel East, Room 4.753 Harm Hospers, Vice-dean for education and internationalisation. Phone (043) 38 82399, 5 Universiteitssingel, Room 3.020
Student Members:	Jasper Habets (ID 155098) André de Zutter (ID 297607)
Secretary:	Ed Sprokkel (Director Faculty Office). Phone (043) 38 82174, 40 Universiteitssingel East, Room 5.735
Director of Studies:	Nico Metaal, Phone (043) 38 84514, 40 Universiteitssingel East, Room 3.732a
Director of Research:	Peter de Weerd, Phone (043) 38 84513, 40 Universiteitssingel East, Room 4.754

## Psychology Council

### *Composition*

Administrative and

support staff-member: Harry Timmers, Phone (043) 38 84013, 40 Universiteits-singel East, Room 5.773

Staff-members: Marieke Kools, Phone (043) 38 82475, 40 Universiteits-singel East, Room 2.749  
Rob Markus, Phone (043) 38 82474, 40 Universiteitssingel East, Room 3.773  
Hanneke van Mier, Phone (043) 388 4010, 40 Universiteitssingel East, Room 4.744.

Tim Schoenmakers, Phone (043) 38 884538, 40 Universiteitssingel East, Room 3.765

Student members: Cedric Muijres (ID 165999)  
Bart Zuidberg (ID 230189)  
Niels Balleman (ID 338664)  
Vi Dinh (165832)

Marjolein Huijts (ID 163805)

Secretary: Ed Sprokkel, Phone (043) 38 82174, 40 Universiteitssingel East, Room 5.735

## The Faculty of Psychology

The Faculty of Psychology has two departments and a Faculty Office, including the Educational Office. The departments are Neurocognition and Experimental Psychology. Roughly 180 people are employed in the Faculty of Psychology.

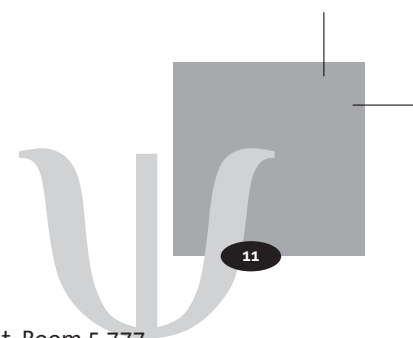
### The Psychology Faculty Office

The Faculty Office supports the activities of the Faculty Board and the Faculty Council, but also the Computer Resource Centre, Research and Internationalisation. Commissions Supporting the Educational Programme

### Curriculum Committee

Members: The coordinators of the programme, of Internationalisation, members of the Board of Examiners.

Tasks: The curriculum committee focuses its attention on maintaining and improving the quality of the programme in its entirety. This implies that the curriculum committee examines the structure and contents of the programme in the light of the objectives to be achieved.



### **Education Office**

Head: Irma Kokx, Phone (043) 38 81883, 40 Universiteitssingel East, Room 5.777

Tasks: Day-to-day coordination of the further development of the curriculum, with a view to bringing the different parts of the programme into alignment with one another, both organisationally and content-wise. This means that the Head of the Education Office is the person to whom students can direct their remarks about the programme and obtain information on educational matters. This includes all questions about registration for having completed a course or a practical training as well as the organisation of courses and practical training. In other words, all administrative matters concerning the Psychology Programme are lodged with the appropriate members of staff in the Education Office. Questions and observations about compensation regulations, exemptions and other matters are to be directed to the chairperson of the Board of Examiners.

### **Research Master Coordinator**

Coordinator is Bernadette Jansma, Neurocognition, Tel. (043) 38 81934, 40 Universiteitssingel East, Room 4.742, E-mail: b.jansma@psychology.unimaas.nl

Tasks: The Coordinator is responsible for the organisation and coordination of the activities connected with the execution of the entire course and examination programme.

### **Board of Examiners**

*Chairperson:* Hans Stauder, Neurocognition, Tel. (043) 38 81933, 40 Universiteitssingel East, Room 4.736

Tasks: Responsible for the execution of the tuition and examination regulations. This Committee also deals with requests for exemptions and related issues.

### **Board of Admission**

Chairperson: Hans Stauder, Neurocognition, Tel. (043) 38 81933, 40 Universiteitssingel East, Room 4.736



Task: Reviewing the applications for the Research Master Programme.

### **Resource Committee**

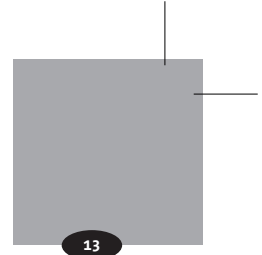
Chairperson: Rob Markus, Experimental Psychology. Phone (043) 38 82474, 40 Universiteitssingel East, Room 3.773.

Task: Responsible for the acquisition of literature for the library and for the Learning Resources Centre.





# The Curriculum



The curriculum includes theoretical courses, colloquia, skill trainings, and workshops followed throughout Year 1 and the beginning of Year 2. These ensure that students acquire a broad intellectual foundation before choosing a research topic for the remainder of the programme. Within the chosen specialisation, core, and elective courses are provided. Trends-in-Cognitive Neuroimaging/Neuropsychology /Abnormal Psychology courses consist of lectures and feedback seminars. In order to broaden overall knowledge of this rapidly developing interdisciplinary field, students follow the two “Trends” courses outside their chosen specialisation. Colloquia are designed to integrate topics that are of interest to the domain of biopsychology and psychopathology. The colloquia are open to all students, thus fostering interdisciplinary interaction. During the colloquia, researchers from each of the three specialisations give lectures and lead group discussions. Skill trainings supply students with the necessary practical knowledge for research in experimental and applied settings, whereas the Methods, Techniques and Statistics (MT&S) workshops provide the necessary foundation for conducting the masters thesis research and advanced skills for a future scientific career.

The Research Master (MSc) programme is equivalent to 120 European credits.

#### Core courses

In the core courses students become acquainted with the most important theories, models, techniques, and analytic methods in the domain of biopsychology and psychopathology. Each specialisation offers at least 10 core courses, which are given by leading scientists from the faculties of Psychology, Health Sciences, and Medicine. The courses are given in a problem-based learning (PBL) or seminar format. Under the guidance of an experienced faculty member, students meet in groups for in-depth discussion of current research issues pertinent to the central theme of the course, based on assigned readings of cutting-edge articles. Course grades and credits (2 to 4 credits per course, depending on its length) are assigned on the basis of participation and a written paper and/or presentation or exam.

#### Trends-in courses

The Trends-in courses consist of seven lectures, each followed by a feedback seminar one week later. During the interactive feedback seminars, the lecturer leads students in a discussion of the topics covered in the lecture as well as in the assigned literature. To facilitate this process, students prepare questions or discussion topics and submit them to the lecturer prior to the feedback seminar. Students are required to follow the two Trends-in courses outside their own specialisation. These courses will familiarize students with key issues in the three specialisations, as reported in high-ranking journals in the field. Course credits (2 credits for each of the two required Trends-in

courses) are assigned (pass/fail) on the basis of attendance and the submitted discussion topics.

### Colloquia

The colloquia offer a more specialised aspect of a topic, with issues transcending the courses and even the specialisations. This will be attained through a lecture followed by active discussions with experts and fellow students. The discussion will be structured on the basis of one or two articles provided by the lecturer and by questions, based on those articles, prepared by the students beforehand. Weekly colloquia are presented by UM faculty and by visiting guest lecturers from The Netherlands and abroad. Students will need to attend colloquia offered by more than one specialisation in order to fulfil the colloquium requirements (at least 15 out of 30 colloquia), thus fostering interdisciplinary knowledge and interaction among students of different specialisations and interests. Each specialisation will present around 10 colloquia, and course credits (5 credits in total) are assigned (pass/fail) on the basis of attendance and on the preparation of questions prior to the lecture.

### Skills Trainings

Skill trainings provide the necessary hands-on experience for research in experimental and applied settings. Each training extends over 4 or 8 weeks, depending on the topic. Some skill trainings will be given to students of multiple specialisations. Course credits (1 to 2 credits per training) will be assigned on the basis of attendance and practical exercises.

### Methods, Techniques, and Statistics (MT&S) Workshops

The MT&S workshops provide both the necessary basis for conducting the masters thesis research and advanced skills for a future scientific career. The teaching format will vary depending on the workshop. For instance, the statistics workshop will consist of a mixture of lectures, hands-on training, and student-centred meetings. More methodological and technical workshops such as Signal Analysis will emphasize hands-on experience and practical aspects. Some workshops will be mandatory for all specialisations, some will be shared by two tracks, and some will be track-specific. Course credits (1 to 2 credits per workshop) are assigned on the basis of attendance and either exams or practical exercises.

### Research internship and Masters thesis

In year 2, from week 9 onwards, students spend most of their time on the preparation and execution of their research project and their masters thesis. Students from all three specialisations conduct their own research project and thereafter report it in

the form of a masters thesis. Course credits will be assigned on the basis of both the research conducted as well as the thesis. For students who do not complete a clinical internship and minors thesis (see below), the masters research and thesis will be assigned 50 credits.

For practical information about international research internships, contact Loes Mallee, Bureau Internationalisering (Internationalisation Office) [e-mail: l.mallee@psychology.unimaas.nl; tel. 388 1920; 40 Universiteitssingel, East, Room. 5.753].

#### Clinical internship and Minors thesis

Students specialising in **Abnormal Psychology** are required to conduct a 13-week clinical internship in an approved setting. The clinical internship can be conducted in conjunction with the research internship or separately. Students are required to submit an additional research report (the minors thesis), based on client/patient-based investigations performed during the clinical internship. Students following the **Neuropsychology** specialisation may complete a clinical internship and minors thesis as an elective. For all students who are either required or choose to do a clinical internship, the minors thesis will be assigned 20 credits and the masters thesis 30 credits.

#### Mentor

Students in the Research Master will have regular interactions with a mentor, who guides the learning process and supervises the personal growth of the student. Close monitoring of student performance and progression will help ensure that students complete the masters programme on schedule.

The mentor should also fulfil the role of a person the student can trust and rely on. For instance, if a student has either academic or non-academic problems, this student should in principle be able to approach his/her mentor to discuss the issue and together look for a solution.

During the introductory week of the first year, each student is assigned to a senior researcher of a student's specialisation as faculty mentor to evaluate progress and identify potential problems. Students will plan a schedule for meetings with their mentors. Meetings are to take place at least once a month and are generally short (about 30 minutes or less). The student needs to inform the mentor in advance about issues that are to be discussed during the meeting.



# 2

## Cognitive Neuroimaging

The specialisation in Cognitive Neuroimaging provides students with an extensive and in-depth theoretical background on all the hot topics of neuroscience and brain research. The conceptual range includes core courses on perception and attention, as well as on somatosensory and motor processes. Additional topics include higher cognitive functions such as language comprehension and production, self-monitoring, and mental imagery. The Cognitive Neuroscience group is known for combining content and methodology to improve answers obtained and questions asked in current and future neuroscientific research. Students are provided with the unique opportunity to be trained in all essential research methods of Cognitive Neuroimaging. Maastricht University has its own 3-Tesla MRI research scanner and hosts fully equipped EEG as well as TMS laboratories. Students thus gain a thorough understanding of the theoretical background of these most advanced techniques for imaging, recording and manipulating neuronal activation in the human brain. In addition, they acquire hands-on experience in how to operate and use these techniques in the context of empirical neuroscience.

**Cognitive Neuroimaging Coordinator:** Alex Sack, Neurocognition, Tel. (043) 38 84267, 40 Universiteitssingel East, Room 4.765, E-mail: a.sack@psychology.unimaas.nl

**Colloquia Coordinator:** Milene Bonte, Neurocognition, Tel. (043) 38 84036, 40 Universiteitssingel East, Room 4.777, E-mail: m.bonte@psychology.unimaas.nl

## 2.1 TRENDS-IN COURSES

### 402 CN Trends-in Neuropsychology – 2 Credits

Coordinator: Jan Ramaekers, Neurocognition, Tel. (043) 38 81951, 40 Universiteitssingel East, Room 2.736, E-mail: j.ramaekers@psychology.unimaas.nl

Neuropsychology focuses on the relationship between brain and behaviour. The so-called brain-behaviour relationships are addressed on a continuum ranging from normal to deviant in children, adolescents, and patient populations. In addition, in the context of psychopharmacology biological mechanisms are studied which pertain to neurotransmitters, hormones and drugs acting upon cognitive function and behaviour. An integrated series of lectures will be presented that includes most aspects of basic and applied neuroscience. The Trends-in-Neuropsychology lectures will provide students with a broad overview of the multidisciplinary research field of Neuropsychology. Presented topics will include the neuropsychology of neurological and psychiatric disorders, cognitive aging and development, motor action and executive control, and pharmacological models of cognitive dysfunction.

Trends-in lectures are provided by:

- Jelle Jolles
- Frans Verhey
- Jan Ramaekers
- Jos Adam
- Martin van Boxtel
- Harry Steinbusch
- Chantal Kemmer

#### 403 CN Trends-in Abnormal Psychology – 2 Credits

Coordinator: Arnoud Arntz, Medical Clinical and Experimental Psychology, Tel. (043) 38 81606, Universiteitssingel 50, Room 1.308, Email: arnoud.arntz@mp.unimaas.nl

Abnormal Psychology investigates mental health problems from a psychological perspective, also addressing biological and sociological issues. This course begins by considering the question of what distinguishes abnormal from normal behaviour, then focuses the discussion on current trends and unresolved issues in this field, with sessions organised according to the major disorder clusters. The final lecture and discussion will go beyond mental illness to consider what constitutes mental health and happiness.

Trends-in lectures are provided by:

- Arnoud Arntz
- Frenk Peeters
- Jim van Os
- Reinout Wiers
- Jeffrey Roelofs & Maaïke Cima
- David Bernstein
- Madelon Peters

## 2.2 CORE COURSES

#### 411 CN Neural Correlates of Selection in Language Processing – 4 Credits

Coordinator: Bernadette M. Jansma, Neurocognition, tel. 38 81934, Universiteits-singel 40, k. 4.742, e-mail: b.jansma@psychology.unimaas.nl

Every minute we make a choice for an appropriate interpretation of sounds and words, as well as a decision to use the right words at the right moment. This choice is one of our special skills that we continuously apply, mostly automatic. Whereas there are some ideas about how this choice, i.e. the selection of relevant information, takes

place in visual processing not much is known about the neural correlates of selection during listening, reading, and speaking.

In the last few years, cognitive neuroscience research on auditory and speech perception revealed insights in how our brain prepares for speaking and how it listens to and understands others. This course aims to develop basic and advanced knowledge about the human auditory and speech system. In addition, students will learn how to apply selection mechanisms known from the visual system to language processing. Next to bottom-up processes we will also address top-down processes, i.e. how the human mind can manipulate auditory perception or how it generates speech from intentions and thoughts. We will also address the link between perception and production in terms of speech monitoring, as well as cross modal integration between vision and audition, as integration seems to be crucial in enhancing processing efficiency.

The objective of this course is to provide:

knowledge of the basic neural principles of auditory and speech processing  
knowledge of cognitive models of auditory and speech segregation, perception, and higher order language processing  
critical thinking with regard to recent and ongoing research in the domain of auditory/speech processing including event-related potential (ERP) and fMRI studies  
knowledge on how to draw analogies from visual domain to auditory/language research.

#### *Literature*

Various recent journal-articles and book-chapters – to be announced, available via e-reader or eleum.

#### *Parallel skills training/workshop*

Event-related potential (ERP)

Coordinator(s): Mart Bles (m.bles@psychology.unimaas.nl), Fren Schmulders (f.smulders@psychology.unimaas.nl). In the ERP skills training, students will acquire hands on experience with the design, analysis, measurement and interpretation of results in ERPs of cognitive functions (see description ‘Skills training: ERP’).

#### *Instructional Approach*

Lectures and tutorial group meetings, practical sessions in the parallel-running skills training “ERP”.

#### *Assessment Form*

Exam with open questions

**412 CN Perception and Attention – 4 Credits**

Coordinator: Peter De Weerd, Neurocognition, Tel. (043) 388 45 13, 40 Universiteitssingel East, Room 4.754, E-mail: p.deweerd@psychology.unimaas.nl

The objective of the course is to present current neuro-cognitive theories and experimental methods in the field of visual attention. Background information on the visual system's organisation will also be covered.

Vision is a complex cognitive process, which provides us with a richer stream of information than any other sense. Primate visual cortex is composed of at least 30 highly interconnected functionally specialized regions. The regions where visual information first enters the cortex are called early visual areas. Neurons in these areas have relatively simple properties, and their relatively small receptive fields are arranged to form retinotopic maps of the environment on the cortex. Higher level visual processing occurs in a ventral and dorsal stream, each of which is composed of regions specialized for representation of more complex visual content (including motion, faces and places).

This network of functionally specialized perceptual regions can adapt to the task the organism is faced with. This is the case, for example, when looking for someone in a crowd, attending to one face at a time. There are different kinds of attention, but attention can be generally described as involving some type of selection of information. When the attentional selection of information is accompanied by a behaviour (such as an eye-movement towards an interesting stimulus), attention is called 'overt'. However, there are also internal, covert forms of attention that do not require motor activity. Attention can be voluntary (controlled, top-down) or involuntary (automatic, bottom-up). Furthermore, attention can be directed to locations in space or to objects, or to features within objects.

In this course, neural mechanisms underlying these various types of attention will be studied. We will focus on recent neuroscientific research in visual perception and attention involving different empirical methods including psychophysics, neurophysiology, functional brain imaging, and evoked potentials, with an emphasis on neurophysiology.

*Literature*

Literature (relevant articles or chapters) will be offered mostly via the electronic reader.

*Practical Training*

There are separate fMRI and EEG practica organised within the research masters (see separate descriptions of those practica)

*Instructional Approach*

There will be group discussions and lectures

*Form of Assessment*

The written exam will consist of about 10 open questions

**413 CN Neuroimaging – 4 Credits**

Coordinator: Elia Formisano, Neurocognition, Tel. (043) 38 84040, 40 Universiteits-  
singel East, Room 4.738, E-mail: e.formisano@psychology.unimaas.nl

The investigation of human brain functions using a range of imaging methods represents the most influential development in Cognitive Neuroscience in the last years. In previous courses you learn essential facts about all major brain mapping techniques, including scalp-recorded Electroencephalography (EEG) and Magnetoencephalography (MEG), transcranial magnetic stimulation (TMS), Positron Emission Tomography (PET) and functional Magnetic Resonance Imaging (fMRI). Each of these methods provides a picture of the brain at a different spatial and temporal scale and has unique strengths and weaknesses.

In this course we will focus on fMRI. fMRI presents clear advantages over the other methods particularly in terms of increased spatial resolution. Since its invention in 1992, fMRI has led to major advances in understanding the neural mechanisms that underlie higher levels of human mental activity and has established a strong link between cognitive psychology and neuroscientific research. Whereas in the other courses of the Cognitive Neuroimaging program you have been or you will be confronted with several applications of fMRI in specific cognitive domains (visual perception and attention, sensorimotor integration, auditory perception), during Brain imaging methods you will gain a deeper knowledge of fundamental and methodological aspects of fMRI.

The tasks will address questions such as: How can the fMRI signal be related to neural activity? How are functional images obtained with an MRI scanner? What do I need for doing a good fMRI measurement? How are “activation maps” created? Some of the tasks are directly linked to the practical part of the course and are intended to provide the necessary theoretical framework for the design, analysis, measurement and interpretation of results in fMRI investigations. Practical sessions on data acquisition and/or analysis of fMRI data of cognitive functions such as auditory and visual processing as well as mental imagery will be integrated in the group meetings.

*Literature*

Various articles and book chapters – to be announced

*Parallel skills training/workshop*

Functional Magnetic Resonance imaging (“fMRI”)

Coordinator(s): Elia Formisano (e.formisano@psychology.unimaas.nl), Alard Roebroek (a.roebroek@psychology.unimaas.nl). In the fMRI skills training, students will acquire hands on experience with the design, analysis, measurement and interpretation of results in fMRI of cognitive functions (see description ‘Skills training: fMRI’).

*Instructional Approach*

Practicals, lectures, and tutorial group meetings will be integrated

*Form of Assessment*

Written exam with a minimum of 6 open questions

**414 CN The Cognitive Neuroscience of Sensory and Motor Systems – 4 Credits**

Coordinator: Alard Roebroek, Neurocognition, Tel. (043) 38 84039, 40 Universiteits-singel East, Room 4.749, E-mail: a.roebroek@psychology.unimaas.nl

Most of the things we do every day (riding a bicycle, typing a summary, drinking a cup of coffee) require the continuous interaction of brain systems that serve sensory perception and systems that control our muscles. In other words, most of the things we do require sensorimotor integration. In this course we will study a couple of important aspects of sensorimotor integration in the brain, particularly in the context of visual perception. Since sensory perception (visual as well as auditory) is covered extensively in other courses, we will focus mainly on the motor system and the transformation and processing of sensory information to serve motor control. We start with basic processes such as: types of motor control (since visual perception takes a little time, how should you use past information to control future actions?), the representations used by primary and secondary motor areas (what is the parameter that is under ultimate control: muscle contractions, joint angles, or whole movements?) and coordinate transformations (how do you get from visual information, coded relative to the point you are looking at, to motor commands that are coded relative to your body or the object you are grasping?). Later, we will focus on higher level issues such as motor learning, predicting the actions of others, and reacting to errors in performance. All topics will be discussed in the context of cognitive neuroscience research to learn how these topics can be investigated both with classical behavioural experiments as also with modern techniques such as functional Magnetic Resonance Imaging.

*Literature*

Various recent journal-articles and book-chapters – to be announced

*Parallel skills training/workshop*

Functional Magnetic Resonance imaging (“fMRI”)

Coordinator(s): Elia Formisano (e.formisano@psychology.unimaas.nl), Alard Roebroek (a.roebroek@psychology.unimaas.nl). In the fMRI skills training, students will acquire hands on experience with the design, analysis, measurement and interpretation of results in fMRI of cognitive functions (see description ‘Skills training: fMRI’).

*Instructional Approach*

Lectures and tutorial group meetings, practical sessions in the parallel-running skills training “fMRI”

*Form of Assessment*

Exam with a minimum of 6 open questions

**415 CN    Advanced fMRI – 3 Credits**

Coordinator: Rainer Goebel, Neurocognition, Tel. (043) 38 84014, 40 Universiteits-singel East, Room 4.753, E-mail: r.goebel@psychology.unimaas.nl

Building on the course “Neuroimaging”, this course will examine advanced topics of fMRI methodology and applications. In the first week, models of the BOLD response and its relation to neural activity will be discussed. In the second week, real-time fMRI and neurofeedback studies will be addressed. In neurofeedback studies, subjects see their own brain activity from selected brain regions during an ongoing measurement. The visualized brain activity allows subjects to learn to control (modulate) the fMRI signal level in the selected regions-of-interest. Implications of neurofeedback for basic research questions as well as potential clinical applications will be discussed. In the third week, details of deconvolution analysis for rapid event-related paradigms will be presented. Procedures to optimize stimulus presentation and limitations of rapid designs (nonlinearities) will be discussed. In the fourth week, advanced methods to establish correspondence between brains of different subjects are examined. The importance of brain normalization for random-effects statistical analysis, creation of probabilistic atlases and meta-analyses will be discussed.

The objective of this course is to provide:

- knowledge of recent models about the relationship between neural activity and the BOLD fMRI signal
- knowledge on how to read, analyze and visualize fMRI brain signals in real-time during an ongoing experiment
- possibilities and limitations of fMRI-based neurofeedback



- technical principles on how to simultaneously scan multiple subjects and implications for social fMRI studies
- detailed knowledge of deconvolution analysis for rapid event-related paradigms and approaches to generate optimal experimental designs
- knowledge of advanced methods of brain normalization and its importance for improved random-effects group analyses

#### *Literature*

Various articles and book chapters – to be announced

#### *Instructional Approach*

Practicals, lectures, and tutorial group meetings will be integrated

#### *Form of Assessment*

- presentation of an advanced fMRI method or application
- written exam with open questions

### **416 CN    Magnetic Brain Stimulation (TMS) – 3 Credits**

Coordinator: Alex Sack, Neurocognition, Tel. (043) 38 84267, 40 Universiteitssingel East, Room 4.765, E-mail: a.sack@psychology.unimaas.nl

Since the very beginning of experimental brain research it has always been a dream of neuroscientists to not only watch the brain at work, but actually change and modulate the neuronal activity in the brain without harming patient or subject.

With the aim of Transcranial Magnetic Stimulation (TMS) we are now actually able to non-invasively reach into the skull of a patient or healthy subject and to temporarily alter brain activity at a specific location and a specific moment in time. This possibility opens the door to a wide range of experimental and clinical applications. In combination with methods of functional imaging, we can now not only passively measure the brain activity during the execution of a particular function, but moreover use TMS to increase or decrease the neuronal activity in the task-related brain area in order to reveal the behavioural changes in the actual task performance. This enables us to experimentally identify those brain areas that are functionally relevant to perform a particular function. In a clinical context, TMS has also been used to treat neurological and psychiatric diseases that are accompanied by a pathologically increased or decreased activity in a specific brain region. Since TMS offers the possibility to increase or decrease neuronal activity even beyond the stimulation itself, it might in the future become a powerful therapeutic tool to help treating diseases like depression or schizophrenia

#### *Literature*

Various recent journal-articles and book-chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written exam with open questions

### **417 CN    Tracking the time-course of cortical processing using MEG and EEG – 3 Credits**

Coordinators: Milene Bonte, Neurocognition, tel. 38 84036, Universiteitssingel 40, k. 4.777, e-mail: m.bonte@psychology.unimaas.nl; Hanna Renvall, Neurocognition, tel. 38 82355, Universiteitssingel 40, k. 2.765, e-mail: Hanna.renvall@psychology.unimaas.nl

Cognitive neuroscientists nowadays have the choice to use a range of different imaging methods to investigate human brain functions. Each of these methods has its own strengths and limitations, which have to be taken into account when investigating a particular research question. Both magnetoencephalography (MEG) and electroencephalography (EEG) have been important in characterizing the time course of neural systems involved in different aspects of perceptual and cognitive processes including those related to auditory and visual perception, attention, language, memory and development. MEG and EEG reflect complementary aspects of brain activity with an advantage of MEG over EEG in the localisation of underlying neural sources.

This course intends to provide detailed knowledge on MEG and EEG that have clear advantage over the other methods in terms of temporal resolution. We will combine practical experience in designing MEG/EEG experiments, MEG/EEG data acquisition, and data analysis with detailed literature discussions on theoretical and methodological issues in MEG/EEG research. Inspired by different types of experimental questions we will discuss a range of available methods for advanced EEG/MEG analysis, including analysis in the time and frequency domains, source localization, the combination of EEG/MEG and fMRI data, independent component analysis and dynamic imaging of coherent sources.

*Literature*

A collection of recent journal-articles and book-chapters

*Parallel skills training/workshop*

Multi-methodological approaches workshop

Coordinator(s): Milene Bonte and Hanna Renvall

This workshop will provide an introduction to practical and theoretical issues related to the combination of EEG/MEG and fMRI in neuroscience research (see description 'Workshop: multi-methodological approaches').

*Instructional Approach*

Lectures, tutorial group meetings and practical sessions.

*Form of Assessment*

A minimum of 6 open questions

**418 CN The Auditory System– 3 Credits**

To be announced

**419 CN Neural Correlates of Consciousness – 3 Credits**

Coordinator: Rob de Vries, Neurocognition, Tel. (043) 38 81894, 40 Universiteits-singel East, Room 4.767, E-mail: r.devries@psychology.unimaas.nl

Consciousness research is a booming business nowadays. During the nineties of the twentieth century, consciousness experienced a revival in science. Theoretical and experimental psychologists and neuroscientists did empirical research revealing new aspects of the conscious mind. Split brain research, blindsight, the experimental discovery of the 'What and the where system' in visual perception were the first impulses to a new science of consciousness as were Kornhuber's and Libet's experiments on consciousness, free will and the readiness potential. (There existed of course since the sixties of the last centuries a branch of research focussing on altered states of mind.)

Many scientists who are involved in research into consciousness nowadays are optimistic about solving the mysteries of consciousness. Philosophers have a more detached attitude. They are less euphoric than most scientists about the progress of scientific research in this area. In his book *The Conscious Mind: In search of a Fundamental Theory*, the philosopher and mathematician David J. Chalmers distinguishes two types of problems: simple and difficult problems. The distinction itself is trivial and yet illuminating. Simple problems are those questions that appear to deal with consciousness but are reformulated in such terms as: "How does the brain process external stimuli?" "How does the brain integrate incoming information into a whole?" "How does introspective and retrospective reporting of our inner psyche occur, and how reliable is it?" "What are the cognitive effects of hard and soft drugs on our cognitive functioning?" and "What factors influence the content of our dream reporting?" (Note that this does not mean that the simple problems are not sufficiently difficult to solve.) Difficult questions are, for example: "Why do the above mentioned information processing and information production involve conscious experiences?" "Do conscious experiences play a causal part in our actions and our mental life, and if so, what part do they play?" and "How can a physical system create such a 'thing' as conscious experience?"

This course reflects the above mentioned division. It is about the minimal problem every science of consciousness has to answer: What are the neuronal correlates of consciousness? And what does the finding of those neuronal correlates tell us about the solution of the difficult problem. The first question is a scientific one. The second is still a philosophical question. The course will assess the neurocognitive ins and outs of the binding problem. We will look into the proposed neuronal correlates of Bernard Baars global workspace theory of consciousness and into Victor Lamme's theory of feedforward and recurrent processes as neuronal correlate of consciousness. But we won't eschew to pose the 'difficult' questions in this course: the philosophical ones. We will discuss the significance of the whole enterprise. We will ask ourselves question as: do we know more now about our consciousness than before? Will the things we learnt help us to solve the difficult problem? If so, how? If not, is that a problem?

*Instructional Approach*

Tutorial group meetings and lectures

*Form of Assessment*

To be announced

**511 CN Neurocognition of Literacy and Numeracy – 3 Credits**

Coordinator: Leo Blomert, Neurocognition, Tel. (043) 38 81949, 40 Universiteits-  
singel East, Room 4.748, E-mail: l.blomert@psychology.unimaas.nl

Learning to read and write is an indispensable skill in literate societies. It is therefore surprising that research into the brain mechanisms enabling literacy acquisition has hardly started. It is even more surprising if we consider that 4% of the population suffers from a specific problem in learning to read and write, despite a normal intelligence. This state of affairs may be contributed to the fact that learning to read and write and the failure thereof have been perceived for a long time as an educational and not a neurocognitive problem. But the deeper reason may be that our brains are evolutionary not prepared for learning a written language. Our brains are probably for a large part hardwired for perceiving and producing speech. Since written language connects symbols (letters) to speech sounds, it is tentative to assume that written language skills develop by building on the already established spoken language system.

Development of numeracy may be an even more indispensable skill in our technological society. Again surprisingly brain research in this area of neurocognition has only very recently started. Although learning arithmetic may look as artificial as learning to read it has in fact a different evolutionary background. Animals possess basic numeracy skills, so our brains may have available basic numeracy networks, but it is

as yet unclear how they contribute to the development of arithmetic and math skills. The course will focus on brain studies of literacy development and failure, e.g., developmental dyslexia and on the development of numeracy skills and failure, i.e., developmental dyscalculia.

#### *Literature*

Various articles and book chapters – to be announced

#### *Instructional Approach*

Lectures and tutorial group meetings will be integrated

#### *Form of Assessment*

Written exam with open questions

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### **512 CN Modeling – 3 Credits**

Coordinator: Eric Postma, IKAT, Tongersestraat 6, Room 1.013, Tel. (043) 38 83493, E-mail: [postma@cs.unimaas.nl](mailto:postma@cs.unimaas.nl)

In present day cognitive neuroscience, psychological experiments generate large amounts of data on processes in the brain. Since the brain is a very complex dynamical system, the interpretation of these data is far from trivial. This course provides students with the basic modelling skills to induce or create models from psychological data acquired in behavioural experiments using EEG or fMRI.

The course starts with an overview of dynamical systems that can be interpreted as models of brain functioning. Examples of such models are: connectionist (or PDP) models, attractor networks, self-organizing feature maps, synfire networks, and liquid-state machines (a.k.a. echo-state networks). The latter models exhibit complex brain-like dynamics that can be read out using trainable classifiers (e.g., perceptrons).

The remainder of the course covers pre-processing, unsupervised, and supervised techniques for the analysis and the automatic classification of brain data. The main pre-processing techniques treated are Fourier transforms and multi-scale wavelet transforms. The unsupervised techniques covered range from principal component analysis to Gaussian mixtures. The supervised learning techniques include neural networks and support vector machines.

Throughout the course, the relations between techniques and known brain mechanisms are explained. Wherever possible, the techniques are related to well-known principles in cognitive neuroscience to facilitate the understanding of the underlying principles. For instance, in the practical sessions, students learn to generate V1-like

receptive-field responses from natural images, analyze oscillatory and synchronization properties of interconnected systems of integrate-and-fire neurons, generate topographical “similarity” mappings akin to cortical maps, and train classifiers to perform coordinate transforms similar to those obtained in parietal systems. In addition, students get acquainted with a wide variety of analysis and learning techniques by applying them to real EEG or fMRI data.

At the end of the course, students perform an individual analysis and/or classification study, preferably of relevance to ongoing research. The results are reported in a brief scientific paper.

*Prerequisites*

Some experience with basic mathematics is helpful. Completion of Matlab skills training.

*Literature*

Various papers will be made electronically available – to be announced

*Parallel skills training/workshop*

*Modelling skills*

Coordinator(s): Eric Postma (postma@cs.unimaas.nl), others to be announced.

In the modelling skills training, students learn to induce models from data using unsupervised and supervised learning and analysis algorithms. All exercises are performed in Matlab.

*Instructional Approach*

Lectures and tutorial group meetings, practical sessions in the parallel-running skills training

*Form of Assessment*

Written exam with open questions and a written report on a practical assignment

## 2.3 SKILLS TRAININGS

### 421 CN ERP – 2 Credits

Coordinator: Fren Smulders, Experimental Psychology, Tel. (043) 38 81909, 40 Universiteitssingel East, Room 3.744, E-mail: f.smulders@psychology.unimaas.nl; Mart Bles, Neurocognition, Tel. (043) 3884042, Universiteitsingel 40 East, Room 4.749, M.Bles@Psychology.unimaas.nl

The aim of this training is to give the students hands-on experience with the experimental design, acquisition and analysis of EEG/ERP experiments. First, students will be introduced into the possibilities and limitations of EEG and ERP research: how to set up a proper experimental paradigm, and how to interpret the resulting data. Furthermore, students receive a general introduction into basic signal analysis, and into some specific analyses of EEG and ERP (artefact management, spectral analysis, filtering, ERP averaging, etc.). After that, there will be a hands-on training in smaller groups in running an ERP experiment, including electrode application, minimizing artifacts, and hygiene and safety in the lab. A simple paradigm will be used that gives reliable results even for a single subject. Data processing will include various EEG analyses that are commonly used, e.g., analyses in the time and frequency domain. Each group will report (also to each other) and discuss their findings.

#### *Literature*

Handbook: To be specified  
Additional papers (to be assigned)

#### *Practical*

Practical sessions for EEG measurement and data analysis

#### *Instructional Approach*

Lecture(s) (ERP and basics of signal processing), tutorial groups (study the literature), a lab-session (measurement), and computer-sessions (analysis).

#### *Form of Assessment*

Short report (2-4 pages) in abbreviated article-form (intro-methods-results-discussion).

### **422 CN    FMRI – 2 Credits**

Coordinators: Elia Formisano, Neurocognition, Tel. (043) 38 84040, 40 Universiteits-singel East, Room 4.738, E-mail: e.formisano@psychology.unimaas.nl; Alard Roebroek, Neurocognition, Tel. (043) 38 84039, 40 Universiteitssingel East, Room 4.749, E-mail: a.roebroek@psychology.unimaas.nl

The primary goal is to get hands-on experience with the experimental design, acquisition and analysis of functional Magnetic Resonance Imaging (fMRI) experiments. Students get a general experimental question/hypothesis, which should be suitably refined to be testable in an fMRI experiment. They will then design and prepare the experiment. Their designs and experimental setups will be discussed. One/two designs will be actually implemented and scanned. Students engage in the statistical analysis of the scanned datasets. Help and prior preparation, especially in the implementation stage (stimulus programming) and data analysis stage (preparation of

data in usable format for analysis in BrainVoyager QX), will be provided by tutors. The tutorial/practicum groups will be left free to test a different hypothesis, and conduct different types of analysis. Each group will report (also to each other) and discuss their findings.

*Literature*

Functional MRI: An introduction to Methods. (2002) P. Jezzard and S.M. Smith (Eds). Oxford University Press  
Additional papers (to be assigned)

*Instructional Approach*

Tutorial groups (design the studies), lab-sessions (scanning), and computer-sessions (analysis). Some additional work outside the sessions is expected

*Form of Assessment*

Short report (4-6 pages) in abbreviated article-form

**423 CN Neuroanatomy – 1 Credit**

Coordinator: Jos Prickaerts, Neurocognition, Tel. (043) 38 81026, 40 Universiteits-singel, Room 2.737, E-mail: j.prickaerts@psychology.unimaas.nl

The aim of the training is to become acquainted with the neuroanatomical terminology and to gain insight into the spatial and functional organisation of the brain. It is essential to have a basic knowledge of the brain anatomy when working in the field of neuropsychology or neurobiology. Many specific brain areas can be linked to particular functions. Thus, knowledge of the brain anatomy and its main functions allows one to directly link specific neurological or psychiatric disorders to particular brain areas. After a short theoretical introduction the students will study whole brains and brain material of mammals at both macroscopical (visual inspection) and microscopical level. The emphasis will be on major brain systems including the basal ganglia and limbic system.

*Instructional Approach*

Almost exclusively practical: dissection of sheep brain, studying of microscopical slices of rat brain, working with plastic human brain models, CD-ROM programs and textbook.

*Form of Assessment*

Written exam consisting of at least six open questions



**424 CN Diffusion Weighted Imaging and Fiber Tracking – 1 Credit**

Coordinator: Alard Roebroek, Neurocognition, Tel. (043) 38 84039, 40 Universiteits-singel East, Room 4.749, E-mail: a.roebroek@psychology.unimaas.nl

Diffusion weighted imaging and fiber tracking are a set of techniques that use the Magnetic Resonance (MR) scanner to probe fiber-bundles that connect different regions of the brain. Thus, instead of the cerebral grey matter, it is the white matter that is the object of study. The connections between brain-regions are the substrate of the interaction and communication between different brain systems. Thus, knowledge about the anatomy of these anatomical connections is of great importance to cognitive neuroscientists. The anatomy of fiber-tracts is imaged indirectly, by measuring the diffusion of water in the brain. Water diffuses more easily parallel to the direction of surrounding axon-bundles, than perpendicular to it. Thus, by measuring the direction of local diffusion of water, we can infer something about the trajectories of fiber-bundles. After completing this training, the student will have knowledge of i) how the MR scanner can be made sensitive to directed diffusion of water and how the resulting diffusion weighted images can be processed, ii) different models for local water diffusion within a voxel, along with useful quantities that can be derived from them, iii) fiber tracking or tractography: how to get from local models of water diffusion to measures of global connectivity between brain regions. Furthermore, the student will get hands-on experience in analyzing and visualizing actual diffusion weighted MR-data, and in using tractography algorithms and assessing the results.

*Literature*

Handouts

Selected articles, to be announced

*Instructional Approach*

Lectures and computer sessions, combined in an interactive format

*Form of Assessment*

Analysis exercises throughout the training

**425 CN Presentation – 1 Credit**

Coordinator: Heidi Koppenhagen, Neurocognition, Tel. (043) 38 84507, 40 Universiteitssingel East, Room 4.731, E-mail: h.koppenhagen@psychology.unimaas.nl

Presentation is a stimulus delivery and experimental control system for neuroimaging and behavioural research. Presentation does not require high programming skills and offers a very friendly way of designing a test paradigm. Whether

you are planning to do behavioural research or physiological research measuring fMRI, EEG, MEG or single neuron recording, Presentation is able to present, control and register your stimuli in synchrony with your measuring device. During the training you will learn to program your own experiment in PCL-language using both visual and auditory stimuli that will be presented randomly. Additionally, the same experiment will be programmed differently to run a) an fMRI experiment and b) an EEG experiment. Having finished this training you will be able to test your own research ideas in reality.

*Literature*

Handouts with exercises

*Instructional Approach*

Computer sessions

*Form of Assessment*

Programming exercises throughout the training

**426 CN & 427 CN Basic Scientific Programming in C and C++ I and II  
– 1 Credit (each)**

Coordinator: Alard Roebroek, Neurocognition, Tel. (043) 38 84039, 40 Universiteits-singel East, Room 4.749, E-mail: a.roebroek@psychology.unimaas.nl

Basic programming skills are an important asset in a scientific environment, even if the development of programs for fMRI or EEG data-processing is not one of the objectives. Many of the programs that are used in scientific research (stimulus programs, data-conversion routines, statistical analysis packages) allow or require writing scripts, batch-code or other high-level programs that control their operation. In this skills-training the objective is to get acquainted with programming in high-level languages in general, and with the syntax of C/C++ in specific. The emphasis will be on constructs, idioms, and algorithms that can be used to solve frequently occurring tasks or problems. Upon completion of this training student will have a basic understanding of: i) syntactic constructs particularly in C++ (variables, control flow structures, functions, classes), ii) common idioms, algorithms and design patterns used to solve simple but common software engineering problems, and iii) made acquaintance with some interesting and relevant applications of programming (e.g., Graphical User Interface (GUI) programming, 3D visualization in OpenGL, creating plugins for Brain Voyager QX, a major fMRI data analysis package).

*Literature*

Essential C++. (1999) S. Lippman. Addison Wesley.

Other literature, to be announced

*Instructional Approach*

Lectures, computer sessions, and 'pen-and-paper' exercises combined in an interactive format

*Form of Assessment*

Programming exercises and 'pen-and-paper' problems throughout the training

**521 CN    Matlab – 1 Credit**

Coordinator: Alard Roebroek, Neurocognition, Tel. (043) 38 84039, 40 Universiteits-singel East, Room 4.749, E-mail: a.roebroek@psychology.unimaas.nl

Matlab is a powerful environment for numerical computation, data analysis and visualization. It is, in essence, a programming language that has built in primitives for common scientific tasks that require many operations in other languages, such as C or Pascal. Examples are tasks such as matrix algebra (used in statistical analysis of data), Fourier transforms (used in signal processing), or 2D or 3D plots for visualization of data or analysis-results. Many complete packages for the analysis of cognitive neuroimaging data (e.g., fMRI data or EEG/MEG data) are implemented in Matlab. Thus, usage of these packages requires at least a basic understanding of Matlab. Furthermore, if more advanced analysis or visualization is needed that is not offered by existing packages, developing such new functionality in Matlab is often the most convenient option. A brief recap of matrix algebra and decompositions serves as an introduction to how Matlab primarily represent and processes data: as matrices. Subsequently, we study in detail the usage of the environment: the prompt, the workspace, getting help, loading and saving data, writing and running m-files (Matlab programs). The most important basic operations, such as filtering data and fitting regression models, will be treated. Finally, the possibilities and usage of extension packages and toolboxes, such as the signal processing toolbox, SPM, and EEGlab, are discussed.

*Instructional Approach*

Lectures, computer sessions combined in an interactive format

*Form of Assessment*

Programming exercises throughout the training

**522 CN    Data Management – 1 Credit**

Coordinator: Arjan Blokland, Neurocognition, Tel. (043) 388 1903, 40 Universiteits-singel East, Room 2.731, E-mail: a.blokland@psychology.unimaas.nl

The aim of this skills training is to acquire basis skills in data management. After doing your scientific research, data have to be prepared for data analysis. Usually, the format of the data acquisition software does not match the requirements of sophisticated statistical software packages (e.g., SPSS or SAS). In this Skill training students will be familiarized with the software package Excel. This program has many features that can be very helpful to overcome time-consuming formatting of data bases. First, an introduction of the basic features of Excel will be presented. Being familiar with these basic aspects is necessary to understand copying of values and formulas (relative or absolute). Also, Excel enables you to make various types of graphs which can be very helpful in making a quick outlook on your data. A fourth aspect that will be dealt with is pivot tables, which is a very helpful tool to organise your data in any manner you find most suitable for your further data handling. A final option that will be dealt with is the use of macro's. These are especially helpful when repetitious changes in layout or recalculatioons have to be made.

#### *Instructional Approach*

There will be group meetings in which direct demonstrations are given via PC/beamer. Students may provide the instructor data to be used as examples

#### *Form of Assessment*

Written Assignment

## **2.4 MT&S WORKSHOPS**

### **431 CN Real Time fMRI and Neurofeedback – 1 Credit**

Coordinator: Rainer Goebel, Neurocognition, Tel. (043) 38 84014, 40 Universiteits-singel East, Room 4.753, E-mail: r.goebel@psychology.unimaas.nl

Recent progress in computer hard- and software allows the real-time analysis of fMRI data providing the basis for “neurofeedback” experiments. In such experiments, subjects see their own brain activity from selected brain regions while they are measured in the scanner. Neurofeedback is thus a way to create a “Brain-Computer Interface” (BCI), which offers interesting basic and clinical applications. Neurofeedback is performed by reading, analyzing and visualizing the fMRI brain signals in real-time during an ongoing experiment. This real-time approach is in contrast to the standard analysis approach in which the huge amount of incoming fMRI signals are recorded first and analyzed hours or days after the experiment.

Neurofeedback applications are discussed, which have shown that with sufficient practice, subjects are indeed able to learn to modulate the brain signals in many brain areas to low and high levels as well as to intermediate signal level intensities. These

results are very important for basic neuroscience research because they allow to study the degree to which the brain can modulate its own activity and to potentially unravel the function of hitherto unknown brain areas. Neurofeedback research also touches on deep philosophical issues, such as the neural correlates of free will. It might also be possible in the future to help people with pain or depression by regulating at will the activity in brain areas involved in pain perception or depression.

This workshop provides a thorough introduction in the principles of real-time fMRI as well as practical neurofeedback sessions using the 3T Allegra scanner. The practical sessions allow studying the role of the hemodynamic delay which makes it difficult to learn to modulate brain activity at the beginning of neurofeedback training because the brain signals measured with fMRI follow the mental activity with a delay of four to six seconds.

*Prerequisite*

Completion of the core course on fMRI

*Literature*

A reference list of some of the literature cited in the lecture will be made available (in print)

*Instructional Approach*

Two days: One day introductory lectures and one practical session

*Form of Assessment*

Mini-Review of 2 pages on a topic touched upon in the lectures

**432 CN    Advanced Statistics – 4 Credits**

Coordinator: Gerard van Breukelen, Methodology and Statistics, Tel. (043) 38 84001, 40 Universiteitssingel East, Room 5.743, E-mail: gerard.vbreukelen@stat.unimaas.nl

Throughout the course, the General Linear Model will serve as a continuous thread. During the first five days, participants will be given an in-depth training in standard statistical methods such as factorial ANOVA for between- and within-subject designs, multivariate ANOVA, discriminant analysis, and multiple regression. Pre-science of two-way factorial ANOVA and multiple regression at the bachelor level of, say Psychology or Health Sciences at Maastricht University, will be presumed and these methods will be briefly reviewed. The following advanced topics will furthermore be covered in these five days: unbalanced factorial designs, covariates, contrast analysis in ANOVA, interaction, nonlinearity and dummy coding in regression, collinearity and residuals checks, data transformation, multivariate ANOVA and discriminant analysis. Five other course days give an introduction to two advanced

methods of analysis that become increasingly important to psychology: mixed (multilevel) linear regression for nested designs and longitudinal studies, and structural equations modeling (SEM, sometimes called LISREL). Finally, the important topic of optimal design and sample size is introduced in a one-day training.

#### *Literature*

For each course day we will use the handout of the lecture plus a suitable book chapter or article. Details of these will be given in time on Blackboard.

Fox (1997) and Kleinbaum (1998) give a fair impression of the content and level of the first course half.

#### *Instructional Approach*

Each meeting starts with a lecture (2 hours), followed by self-tuition (2 hours) in the morning. Each afternoon some computer exercises will be done, followed by a plenary discussion session. Participants are supposed to prepare themselves for each session by reading the handout or literature. Staff will vary between, but not within weeks, so it will always be clear whom to address for technical questions. General issues can be discussed with the course coordinator.

#### *Form of Assessment*

Open-book multiple-choice exam will consist of questions resembling the exercises (general theory, some elementary computations, interpretation of computer output).

#### *References*

Fox, J. (1997). Applied regression analysis, linear models, and related methods. Thousand Oaks (CA): SAGE.

Kleinbaum, D.G., Kupper, L.L., Muller, K.E., & Nizam, A. (1998). Applied regression analysis and other multivariable methods. 3rd ed. Pacific Grove (CA): Brooks/Cole.

### **433 CN    Methods of Deactivation – 1 Credit**

Coordinators: Peter de Weerd, Neurocognition, Tel. (043) 38 84513, 40 Universiteits-singel East, Room 4.754, E-mail: p.deweerd@psychology.unimaas.nl; Alex Sack, Neurocognition, Tel. (043) 38 84267, 40 Universiteits-singel East, Room 4.765, E-mail: a.sack@psychology.unimaas.nl

The objective of the workshop is to present a number of lesion methods that are used in current neurocognitive research.

Current neuro-cognitive research in both animal models and humans places a heavy emphasis on the demonstration of physiological correlates of cognitive performance. The correlation between a functional measure of brain activity and behav-

our, however, does not in any way imply a causal or direct relationship between both. To show the behavioural relevance of activity in a given brain region, the contribution of that brain region should be blocked and the effect of this block on cognitive behaviour should be assessed.

There are a variety of ways in which activity in a brain region can be prevented or influenced. Some studies use anatomical lesion methods (in animals), while others use reversible methods such as cooling, and pharmacological or genetic manipulations in animals, or transcranial magnetic stimulation (TMS) in human subjects.

The workshop will start with a lecture that gives an overview of different methodologies, which will include a discussion of the advantages and limitations of the different techniques, and issues related to data interpretation. Two other lectures will provide examples of studies using anatomical lesions in monkeys, and TMS in humans.

#### *Literature*

A reference list of some of the literature cited in the lecture will be made available (in print)

#### *Instructional Approach*

Lectures followed by discussion

#### *Form of Assessment*

Mini-Review of 2 pages on a topic touched upon in the lectures

### **434 CN Multi-methodological Approaches – 1 Credit**

Coordinators: Milene Bonte, Neurocognition, tel. 38 84036, Universiteitssingel 40, k. 4.777, e-mail: m.bonte@psychology.unimaas.nl; Hanna Renvall, Neurocognition, tel. 38 82355, Universiteitssingel 40, k. 2.765, e-mail: hanna.renvall@psychology.unimaas.nl

Perceptual and cognitive functions rely on the serial and/or parallel activation of multiple distributed brain areas. Hemodynamic measures (fMRI and PET) provide detailed information on the spatial location of these activated areas, whereas neurophysiological measures (EEG and MEG) can be used to follow the time-course of this activation with millisecond precision. Many research laboratories are currently working on combining the advantages of these different techniques. Although this is an obvious and crucial step in cognitive neuroscience, its additional value depends on a careful consideration of many theoretical and practical issues.

During the first part of this workshop we will use a standard auditory paradigm to measure MEG and fMRI data in separate sessions in the same subject. During the sec-

ond part we will analyze both data sets and discuss theoretical and practical issues related to the combination of EEG/MEG and fMRI in neuroscience research.

*Instructional Approach*

Practical sessions.

*Prerequisite*

Completion of the core courses on fMRI and EEG/MEG

**435 CN & 436 CN Signal Analysis I & II – 2 Credits (each)**

Coordinator: Fabrizio Esposito

Traditional and advanced statistics provide essential knowledge and tools for the correct formulation of scientific inferences and to summarize a research work. Nonetheless, modern techniques in neuroscience research have strongly enriched the amount of information that is possible to extract and analyze from experimental data, especially because of the improved spatial and temporal resolution of the acquisition methods. Most of the new information can be recovered by including in the statistical modeling the “signal” structure of the data, generally due to the physical dimensions of data, time and space. The two “Signal Analysis” courses introduce the practical implementation of the traditional and latest research approaches to time and space signal analysis in the context of neuroscience research.

The first course (Signal Analysis I) is focused on time series analysis from one- and multi-dimensional data, with special emphasis to image time-series processing. The basics of discrete time and space signal acquisition and modeling are presented and discussed in their practical neuroscience applications. The course has the objective to provide the participants with operational understanding of the classical signal analysis techniques like pre-processing, analysis in the frequency, time and amplitude domains, Fourier series, Fourier Transform and FFT, spectral analysis, auto- and cross-correlation analysis, convolution and deconvolution analysis. Practical demonstrations from real world data will reinforce concepts introduced in the lectures, and concise mathematical tutorials will be provided to simplify further readings from the technical literature.

The second course (Signal Analysis II) will introduce the participants to emerging advanced signal analysis techniques, including multivariate component-based analysis and multiresolution wavelet-based time and space signal processing. Lab sessions will be organised to encourage participants to actively try out the discussed methods with appropriate software tools and sample data. The participants will also be welcome to discuss with the instructor different applications of the course methods and how to run the tools on their own data.



*Literature*

Various recent journal-articles and book-chapters – to be announced

*Instructional Approach*

Lectures and tutorial group meetings with integrated practical sessions

*Form of Assessment*

Exam with a minimum of 6 open questions

**531 CN Protocol Writing – 2 Credits**

Coordinator: Herman Schaalma, Experimental Psychology, tel. 38 84329, Universiteitssingel 5, k. 3.001, e-mail: h.schaalma@psychology.unimaas.nl

During this course, students will be familiarized with the different phases of writing scientific protocols and research reports. In advance of their upcoming masters thesis, they will learn to define and crystallize a research question based on its feasibility and scientific relevance; to prepare and structure their arguments and to plan the different parts of the paper; to think about suitable designs and research methods for data acquisition and analysis, and, finally, to learn how to walk through the writing process starting from draft to the final version. This all will be accomplished by competence-based learning in which they have to integrate factual knowledge (from the literature) into skill-based practice (by exercise).

*Instructional Approach*

A combination of introductory lectures, literature meetings and practical sessions

*Form of Assessment*

Written research proposal

## 2.5 SCHEDULE COGNITIVE NEUROIMAGING

YEAR 1	
Weeks	
1 week	Introduction Week
7 weeks	<b>Trends-in</b> Neuropsychology & <b>Trends-in</b> Abnormal Psychology (4 credits) <b>Core Courses:</b> Perception and Attention (4 credits) & Neural Correlates of Selection in Language Processing (4 credits) <b>Skills Training:</b> ERP (2 credits) <b>Colloquia</b> (5 credits)
7 weeks	<b>Trends-in</b> Neuropsychology & <b>Trends-in</b> Abnormal Psychology (2 credits) <b>Core Courses:</b> Neuroimaging (4 credits) & Sensory and Motor Systems (4 credits) <b>Skills Training:</b> fMRI (2 credits) <b>Colloquia</b>
CHRISTMAS BREAK	
4 weeks	<b>Core Course:</b> Advanced fMRI (3 credits) <b>Workshop:</b> Real-time fMRI and Neurofeedback (1 credit) <b>Workshop:</b> Advanced Statistics (4 credits) <b>Skills Training:</b> Neuroanatomy (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Magnetic Brain Stimulation (3 credits) <b>Workshop:</b> Methods of Deactivation (1 credit) <b>Workshop:</b> Advanced Statistics <b>Skills Training:</b> Diffusion Weighted Imaging and Fiber Tracking (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Tracking the time-course of cortical processing using MEG and EEG (3 credits) <b>Workshop:</b> Multi-methodological Approaches (1 credit) <b>Workshop:</b> Advanced Statistics <b>Skills Training:</b> Presentation (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> The Auditory System (3 credits) <b>Workshop:</b> Signal Analysis I (2 credits) <b>Skills Training:</b> C++ I (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Neural Correlates of Consciousness (3 credits) <b>Workshop:</b> Signal Analysis II (2 credits) <b>Skills Training:</b> C++ II (1 credit) <b>Colloquia</b>

YEAR 2	
4 weeks	<b>Core Course:</b> Neurocognition of Literacy and Numeracy (3 credits) <b>Workshop:</b> Protocol Writing (2 credits) <b>Skills Training:</b> Matlab (1 credit)
4 weeks	<b>Core Course:</b> Modeling (3 credits) <b>Workshop:</b> Protocol Writing <b>Skills Training:</b> Data Management (1 credit)
32 weeks	<b>Research Internship &amp; Masters Thesis (50 credits)</b>

**402 CN & 403 CN - Trends-in courses:** 11th September-11th December **2006**

**404 CN - Colloquia:** 15th September **2006**- 15th June **2007**

### Core Courses

**411 CN** - Neural Correlates of Selection in Language

Processing: 11th September- 26th October **2006**

**412 CN** - Perception & Attention: 11th September- 26th October

**413 CN** - Neuroimaging: 30th October- 14th December

**414 CN** - Sensory & Motor Systems: 30th October- 14th December

**415 CN** - Advanced fMRI: 8th January- 1st February **2007**

**416 CN** - Magnetic Brain Stimulation: 5th February- 8th March

**417 CN** - EEG & MEG: 12th March- 5th April

**418 CN** - The Auditory System: 16th April- 14th May

**419 CN** - Neural Correlates of Consciousness: 21st May- 18th June

**511 CN** - Neurocognition of Literacy and Numeracy: 3rd September- 27th September

**512 CN** - Modeling: 31st September – 24th October

### Skills Trainings

**421 CN** - ERP: 15th September- 27th October **2006**

**422 CN** - fMRI: 3rd November- 15th December

**423 CN** - Neuroanatomy: 12th January- 2nd February **2007**

**424 CN** - Diffusion Weighted Imaging and Fiber Tracking: 9th February- 9th March

**425 CN** - Presentation: 16th March- 5th April

**426 CN** - C++ I: 20th April- 11th May

**427 CN** - C++ II: 25th May- 15th June

**521 CN** - Matlab: 7th September- 28th September

**522 CN** - Data Management: 4th October- 25th October

### Workshops

**431 CN** - Real-time fMRI and Neurofeedback: 9th January- 30th January **2007**

**432 CN** - Advanced Statistics: 10th January – 18th April

CHAPTER 2

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- 433 CN** - Methods of Deactivation: 6th February- 6th March
- 434 CN** - Multi-methodological Approaches: 13th March- 3rd of April
- 435 CN** - Signal Analysis I: 25th April- 16th May
- 436 CN** - Signal Analysis II: 23rd May-13th June
- 531 CN** - Protocol Writing: 4th September- 23rd October

# 3

## Neuropsychology

The specialisation in Neuropsychology focuses on the relationship between brain and behaviour. In this perspective, behaviour is a broadly defined term and includes cognitive functions (e.g., memory, language, perception, planning, and psychomotor functions) as well as affective functions. These so-called 'brain-behaviour' relationships are addressed on a continuum ranging from 'normal' to 'deviant' in children, adolescents and patient populations. Neurological (e.g., Parkinson disease) and psychiatric disorders (e.g., ADHD, schizophrenia, dementia) will be studied thoroughly. In addition, in the context of psychopharmacology, biological mechanisms are studied which pertain to neurotransmitters, hormones, and drugs that act upon cognitive function and behaviour. Central is the relation between manipulating brain neurochemistry by means of psychoactive substances and cognitive function, in animal and human models. An integrated programme will be presented that includes most aspects of basic and applied neuroscience. Students will have the opportunity to work in a multidisciplinary team consisting of psychologists, biologists and psychiatrists.

**Neuropsychology Coordinator:** Jan Ramaekers, Neurocognition, Tel. (043) 38 81951, 40 Universiteitssingel East, Room 2.736, E-mail: j.ramaekers@psychology.unimaas.nl

**Colloquia Coordinator:** Eef Theunissen, Neurocognition, Tel. (043) 38 81940, 40 Universiteitssingel East, Room 2.735, E-mail: e.theunissen@psychology.unimaas.nl

### 3.1 TRENDS-IN COURSES

#### 401 NP Trends-in Cognitive Neuroimaging – 2 Credits

Coordinator: Alex Sack, Neurocognition, Tel. (043) 38 84267, 40 Universiteitssingel East, Room 4.765, E-mail: a.sack@psychology.unimaas.nl

Cognitive neuroimaging is an entirely new research field that originally emerged from a combination of traditional sciences such as philosophy, psychology, medicine, and biology that all investigate the principles of perception, behaviour and cognition from different perspectives. As technical developments of different methods and tools in the field of cognitive neuroimaging came forth, and as theoretical application of different mathematical and computer science-based models were used to explain neuronal functioning, additional disciplines, such as physics, mathematics, bioengineering, and computer science materialized as an important part of this research field. Subsequently, an effective research project in cognitive neuroimaging requires an interdisciplinary cooperation.

This Trends-in course will provide students with a broad overview over the general research approaches, methods and techniques as well as applications in the field of Cognitive Neuroimaging. Presented and discussed topics will range from neuronal bases of perception, attention and mental imagery, language and self-monitoring, as well as clinical investigations of dyslexia.

Trends-in lectures are provided by:

- Rainer Goebel
- Elia Formisano
- Alex Sack
- Leo Blomert
- Peter de Weerd
- Bernadette Jansma

#### **403 NP Trends-in Abnormal Psychology – 2 Credits**

Coordinator: Arnoud Arntz, Medical Clinical and Experimental Psychology, Tel. (043) 38 81606, Universiteitssingel 50, Room 1.308, Email: arnoud.arntz@mp.unimaas.nl

Abnormal Psychology investigates mental health problems from a psychological perspective, also addressing biological and sociological issues. This course begins by considering the question of what distinguishes abnormal from normal behaviour, then focuses the discussion on current trends and unresolved issues in this field, with sessions organised according to the major disorder clusters. The final lecture and discussion will go beyond mental illness to consider what constitutes mental health and happiness.

Trends-in lectures are provided by:

- Arnoud Arntz
- Frank Peeters
- Jim van Os
- Reinout Wiers
- Jeffrey Roelofs & Maaïke Cima
- David Bernstein
- Madelon Peters

### **3.2 CORE COURSES**

#### **441 NP Brain Damage – 4 Credits**

Coordinator: Martin van Boxtel, Psychiatry & Neuropsychology, Universiteitssingel 50, Room 1.105, Tel. (043) 38 81028, E-mail: martin.vanboxtel@np.unimaas.nl

This course aims to provide the student with knowledge of brain-behaviour relations by examining the disturbances in psychological functioning that occur in connection with brain injury. The goal in the end is that the students gain insight into the taxonomy of the most important neuropsychological syndromes. The functional disturbances that occur following focal damages in the different parts of the cerebral cortex, connective tissues, and in the limbic and other subcortical brain parts will be examined. The emphasis is on gaining insight into mechanisms. The course starts with a discussion of the general effects of brain injury and the different causes of brain injury. Thereafter, the general and specific dysfunctions with regard to psychological functioning are discussed in connection with injury at the level of the brain stem, diencephalon, and ascending fiber system. Dysfunctions after injury in the posterior neocortex are examined next in relation to perception, spatial orientation, and language. Dysfunctions after injury in the anterior neocortex are discussed in connection to changes in the planning and steering functions. Memory disturbances and affective functions are considered in relation to injuries to the limbic system. Upon completion of this course, the student will have an overview of the functional brain anatomy, brain physiology, and the specific relation between brain structure and psychological functioning. The student is also then familiar with the mechanisms that provide the basis for brain plasticity and regeneration and with the key principles underlying functional recovery after brain injury.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written exam

**442 NP Behavioural Disorders – 4 Credits**

Coordinator: Dymphie in de Braek, Psychiatry & Neuropsychology, Vijverdal, Dept. F, Tel. (043) 3685264, E-mail: d.indebraek@np.unimaas.nl

This course is intended to impart knowledge about the cognitive dysfunctions that accompany severe neuropsychiatric and neurological disorders and to provide insight into the biological mechanisms and intervention possibilities for these disorders. The course is concerned with the changes in psychological functioning that occur in connection with a number of frequently occurring brain disorders. The intention is to gain insight into the characteristic manifestations of behavioural problems and cognitive functional disturbances along with the brain and behavioural mecha-



nisms that lie at the foundation of these. The emphasis in this course is on the problems associated with such neuropsychiatric phenomena as schizophrenia, compulsive symptoms, epilepsy, and mood disorders. The neuropsychiatric problems associated with a number of the neurological phenomena important for psychologists will also be considered. Attention will be paid to the psychological problems associated with cerebrovascular disturbances and light brain trauma. With respect to the mechanisms that lie at the basis of behavioural and cognitive disorders, both the relevant biological and psychological factors will be considered.

#### *Literature*

Various recent journal articles and book chapters – to be announced

#### *Instructional Approach*

Small lectures and tutorial group meetings

#### *Form of Assessment*

Written exam

### **443 NP Cognitive Aging – 4 Credits**

Coordinator: Pascal van Gerven, Neurocognition, phone: 3884512, Universiteitssingel 40, east, room 2.742, e-mail: p.vangerven@psychology.unimaas.nl

This course will cover a broad range of topics in the field of cognitive aging. A thorough understanding of normal cognitive aging is considered essential before issues in abnormal aging can be considered. Essential questions are: What is cognitive aging? What neurobiological and cognitive mechanisms determine whether a person ages pathologically, normally, or successfully? How can this aging process be influenced? Students will critically reflect on essential theories, state-of-the-art research, established research methods, and clinical interventions to address these questions. Themes will be physical (somatic) aging, brain aging (biological perspective), cognitive aging (behavioral perspective), pathological aging (mild cognitive impairment, dementias, Alzheimer's disease, Parkinson's disease), interventional strategies (e.g., cognitive training), and methodological issues in aging research.

#### *Literature*

An e-reader will be provided (although most of the literature will also be available in the library). The course will not be accompanied by a textbook, but useful reference books will be recommended in the course manual.

#### *Instructional Approach*

There will be ten tutorial meetings and at least five lectures (including the opening lecture).

*Form of Assessment*

The final test contains maximally nine open-end questions

**444 NP Arousal, Attention, and Psychopharmacology – 4 Credits**

Coordinator: Annemiek Vermeeren, Neurocognition, Tel. (043) 38 81952, 40 Universiteitssingel East, Room 2.738, E-mail: a.vermeeren@psychology.unimaas.nl

This course focuses on the role of arousal in cognitive and psychomotor performance. Arousal is an important concept in various fields of psychology that is closely linked to other concepts such as activation, alertness, attention, stress and motivation. In performance theories arousal is often thought of as the amount of energy or attentional capacity a person has available to work with. Research in this area is concerned with questions like: how much arousal or attentional capacity is needed to properly think or act? When and why may these energetic resources be insufficient, will errors be made and will accidents occur? What are the effects of drugs, sleep deprivation, circadian rhythm, noise and heat on performance? Are the effects dependent on task characteristics such as stimulus quality, cognitive load, response complexity and duration?

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written exam

**445 NP Biopsychology – 3 Credits**

Coordinator: Jos Prickaerts, Neurocognition, Tel. (043) 38 81026, 40 Universiteitssingel, Room 2.737, E-mail: j.prickaerts@psychology.unimaas.nl

This course provides an in depth description of biopsychological concepts which have been presented in the bachelor program in the first and third year. It will cover elements from functional neuroanatomy, neurophysiology and psychopharmacology, as applied to brain and behaviour research. Major emphasis will be on the macro- and microanatomy of the brain, neurochemical and neurobiological mechanisms related to neurotransmission, hormones and drug action. With respect to 'function', an elaboration will be given of processes underlying sexual behaviour, affective behaviour, motivated behaviour and cognitive processes.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

**446 NP Brain, Learning, and Memory – 3 Credits**

Coordinator: Arjan Blokland, Neurocognition, Tel. (043) 388 1903, 40 Universiteits-singel East, Room 2.731, E-mail: a.blokland@psychology.unimaas.nl

There has been a rapid increase in our understanding of the basic mechanisms underlying the consolidation of new information, and its later retrieval. Both data from pre-clinical research in animal models and in preclinical human models and neuroimaging experiments will be used in this course, together with seminal experiments in patients. Recent theories and experimental data help describe to the student how a multidimensional view of learning and memory can help elucidate the relevant mechanisms both in terms of biology and cognition. Also, the influence of drugs and circumstances which lead to decreased efficiency of information processing are discussed in depth.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment and Presentation

**447 NP Executive Functions and Control of Action – 3 Credits**

Coordinator: Eric Vuurman, Psychiatry & Neuropsychology, Tel. (043) 38 81046, 40 Universiteitssingel East, Room 2.747, E-mail: e.vuurman@psychology.unimaas.nl

The course presents multidisciplinary information from experimental psychology, neuropsychology, cognitive neuroscience and related disciplines. Various techniques and theoretical models are presented and evaluated, and the neuroscientific basis of the behavioural and cognitive functions is discussed. A key element in our current understanding of behavioural organisation is cognitive control. At present, a

redefinition of related concepts (such as inhibition, working memory and executive functioning) is taking place, based on insights from cognitive neuroscience. Throughout the course, emphasis will be on mechanisms of attention, working memory, cognitive shifting, preparation for action, sensorimotor integration, behavioural planning, and monitoring. Various experimental approaches are evaluated.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

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**448 NP    Neuropsychiatric Disorders – 3 Credits**

Coordinator: Bart Scholtissen, Psychiatry & Neuropsychology. Tel. (043) 38 84100, Dr. Tanslaan 10, Room 4.E3.007, E-mail: b.scholtissen@np.unimaas.nl

The course covers main findings and controversies related to neuropsychiatric disorders with emphasis on brain mechanisms, behavioural and cognitive dysfunction. Both measures used to evaluate biological variables, techniques relevant for assessment of behavioural and cognitive problems are presented. Disorders on the interface between neuropsychiatry and cognitive/behavioural neurology are discussed in aspects of diagnostics and classification. Theories related to dysfunctional brain structures and their relations are presented, with an emphasis on circuits in which prefrontal and temporal structures participate. Dysfunctions on the level of neurotransmitter are presented as well as neuroimaging methods (PET, SPECT, fMRI) used to evaluate changes in metabolism.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

**449 NP Neuropsychopharmacology – 3 Credits**

Coordinator: Jan Ramaekers, Neurocognition, Tel. (043) 38 81951, 40 Universiteits-singel East, Room 2.736, E-mail: j.ramaekers@psychology.unimaas.nl

This course addresses the influence of drugs upon normal functioning and disease states. Neurobiological and neurochemical mechanisms are presented with the aim to deepen the insight into the various mechanisms of drug action. Major drug classes are reviewed which are used frequently in the treatment of mental disorders and neurological disease, but also other classes of drugs which have side-effects on the central nervous system. Other topics in this course are pharmaco-epidemiology, pharmaco-fMRI, experimental designs used in treatment studies, drugs of abuse, and recreational drugs.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

**541 NP Cognitive Development – 3 Credits**

Coordinator: Petra Hurks, Neurocognition, Tel. (043) 38 84269, 40 Universiteitssingel East, Room 2.747, E-mail: p.hurks@psychology.unimaas.nl

This course focuses on brain-behaviour relationships in children and adolescents. It addresses the range from 'normal', 'borderline pathology', via focused and selective problems, to children with neurodevelopmental or neuropsychiatric diseases. A thorough understanding of normal cognitive development is essential before issues in abnormal development may be considered. What neurobiological or psychosocial mechanisms can be identified that may lie at the basis of this difference between normal and abnormal development? Relevant theories, state-of-the-art research, and clinical approaches (e.g., treatment protocols) will be evaluated while addressing this question. In addition, students will be broadly acquainted with typical research methods that are custom in the area of cognitive development, such as cross-sectional and longitudinal designs, and the statistical strategies that are used to make inferences from such studies.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

**542 NP Brain, Cognition, and Mental Health – 3 Credits**

Coordinator: Jelle Jolles, Psychiatry & Neuropsychology, Tel. (043) 38 81041, Dr. Tanslaan 10, Room 4.E3.002, E-mail: j.jolles@np.unimaas.nl

This course addresses the biological and psychosocial mechanisms which determine mental function and dysfunction. Cognitive problems can be the result of a (neuro) psychiatric or neurological condition, such as depression or acquired brain damage (e.g., Traumatic Brain Injury). On the other hand, impairment of efficient information processing can also be the cause of development of affective problems. This may be the case in varying states such as Attention Deficit Disorder, depression and Mild Cognitive Impairment. The course departs from a multidimensional viewpoint where the various factors which are of importance have to be integrated. Cognitive psychology, cognitive neuroscience, neurology/psychiatry and developmental psychology give important insights in this respect.

*Literature*

Various recent journal articles and book chapters – to be announced

*Instructional Approach*

Small lectures and tutorial group meetings

*Form of Assessment*

Written assignment

**3.3 SKILLS TRAININGS****451 NP Neuropsychological Assessments – 2 Credits**

Coordinator: Jeanette Dijkstra, Psychiatry & Neuropsychology, Tel. (043) 38 74117, Dr Tanslaan 10, Room 4.G4.034, E-mail: j.dijkstra@np.unimaas.nl

The aim of this skills training is to acquire basic skills necessary for collecting neuropsychological data from subjects and patients. The courses Brain Damage and Behavioural Disorders run in parallel and offer one combined practical: Neuropsychological Assessment I. Elements of psychological research in relation to

1) intellect, 2) cognition, 3) mood, 4) personality and 5) behaviour will be discussed. It starts with an introductory lecture in which the principles and interpretation of neuropsychological diagnostics are discussed, which are illustrated with case studies. Tests used in the practical are demonstrated, including their interpretation and how to report the outcomes. Next, students are trained in neuropsychological history taking which they will perform on trained actors who simulate different kinds of neurological or neuropsychiatric pathology. Furthermore, students are trained in behavioural observation by watching the neuropsychological examination of different patients on video. Finally, using data from the patient history, test observation and examination results, each student writes a comprehensive neuropsychological report, which is graded. In a final tutorial group meeting specific problems of the assessments and the individual reports are discussed.

*Instructional Approach*

Group meetings

*Form of Assessment*

Graded patient report

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**452 NP Basic Cognitive Psychological Skills – 2 Credits**

Coordinator: Eric Vuurman, Psychiatry & Neuropsychology, Tel. (043) 38 81046, 40 Universiteitssingel East, Room 2.747, E-mail: e.vuurman@psychology.unimaas.nl

This course focuses on the acquisition of basic skills needed in cognitive performance research. The course is centred around a psychological experiment studying the detrimental effects of arousal manipulation (environmental noise) on cognitive processing. Students will learn to use and adapt a computerized reaction-time experiment, collect data and perform data analysis. Besides hands-on experience using a computerized test battery, emphasis will be placed on the role of pencil and paper tests to describe cognitive performance. Students will be required to recruit a small number of subjects and administer the test battery according to a pre-defined protocol. An overview of techniques and tests will be given that are currently used to evaluate performance in a number of cognitive domains, such as language, perception, attention and executive functions.

*Instructional Approach*

Formal introduction in the first week, followed by 6 weeks in which the experiment is carried out and reported. This will be done by pairs of students. Each week a 1-hour meeting will be staged with entire group to provide feedback and discussion.

*Form of Assessment*

Research report on the experiment

**453 NP Neuroanatomy – 1 Credit**

Coordinator: Jos Prickaerts, Neurocognition, Tel. (043) 38 81026, 40 Universiteits-singel, Room 2.737, E-mail: j.prickaerts@psychology.unimaas.nl

The aim of the training is to become acquainted with the neuroanatomical terminology and to gain insight into the spatial and functional organisation of the brain. It is essential to have a basic knowledge of the brain anatomy when working in the field of neuropsychology or neurobiology. Many specific brain areas can be linked to particular functions. Thus, knowledge of the brain anatomy and its main functions allows one to directly link specific neurological or psychiatric disorders to particular brain areas. After a short theoretical introduction the students will study whole brains and brain material of mammals at both macroscopical (visual inspection) and microscopical level. The emphasis will be on major brain systems including the basal ganglia and limbic system.

*Instructional Approach*

Almost exclusively practical: dissection of sheep brain, studying of microscopical slices of rat brain, working with plastic human brain models, CD-ROM programs, and textbook.

*Form of Assessment*

Exam consisting of at least six open questions

**454 NP E-prime – 1 Credit**

Coordinator: Anita van Oers, Psychiatry &, Neuropsychology, Tel. (043) 38 81035, 40 Universiteitssingel East, Room 2.735, E-mail: anita.vanoers@np.unimaas.nl

E-Prime is a comprehensive suite of applications offering audited millisecond-timing precision, enabling researchers to develop a wide variety of simple to complex experiments in a user-friendly environment that can be implemented with randomized or fixed presentation of text, pictures and sounds (individual or simultaneous). During the training you will learn to program your own experiment in using both visual and auditory stimuli that will be presented randomly.

Having finished this training you will be able to test your own research ideas in reality.

*Literature*

Handouts with literature and exercises

*Instructional Approach*

Group meetings in which we discuss the 'to-be-programmed-exercises' followed by computer sessions



*Form of Assessment*

Programming exercises throughout the training

**455 NP Psychophysiological Skills – 1 Credit**

Coordinator: Pascal van Gerven, Neurocognition, Tel. (043) 38 84512, 40 Universiteitssingel East, Room 2.742, E-mail: p.vangerven@psychology.unimaas.nl; Eric Vuurman, Psychiatry & Neuropsychology, Tel. (043) 38 81046, 40 Universiteitssingel East, Room 2.747, E-mail: e.vuurman@psychology.unimaas.nl

The goal of this skills training is to acquire basic skills in major peripheral psychophysiological measures. The relation between cognitive and psychophysiological variables, such as memory load, mental effort, and attention, will be made clear. In addition, general methodological concepts and issues, such as tonic (baseline) activity, phasic activity, and the so-called “law of initial value”, will be discussed.

The training consists of four meetings. In the first meeting, an overview will be presented of the psychophysiological methods that are relevant to neuropsychology. The second through fourth meeting will be devoted to major domains in psychophysiology, such as heart rate (variability), blood pressure, galvanic skin responses, and pupillometry (i.e., pupil dilation). Throughout the four sessions, basic hands-on experience will be offered in the laboratory. During the practical sessions, an existing dataset will be provided to analyze and report on.

*Instructional Approach*

Lectures, demonstrations, and practical sessions

*Form of Assessment*

Short research report

**456 NP Neuropsychological and Neuropsychiatric Instruments I: Scales and questionnaires – 1 Credit**

Coordinator: Renate de Groot, Psychiatry & Neuropsychology, Tel. (043) 38 81038, Dr Tanslaan 10, Room 4.E3.007, E-mail: RHM.degroot@np.unimaas.nl

The aim of this skills training is to get an overview of rating scales, survey methods and questionnaires used in clinical research and population research in the domain of neuropsychology/neuropsychiatry and to acquire basic skills in the use of some major instruments.

The training consists of four meetings. In the first meeting, an overview will be presented of the instruments which are relevant for neuropsychology/neuropsychiatric research in clinical settings and in the population. The second through fourth meeting will be devoted to three classes of instruments and their strengths and weaknesses. Examples will be provided on the various possibilities with respect to the choice of instruments with a focus upon the relevance for neuropsychology/neuropsychiatry. Hands on experience will be provided with respect to measures used for rating, scoring, and reliability. The three domains are, respectively 1) instruments used for the assessment of psychopathology, notably depression, anxiety, mental fatigue and related conditions, 2) instruments used for the assessment of cognitive or behavioural dysfunctions (e.g., Neuropsychiatric Inventory, Memory Assessment scales, MMSE, ADAS, Camdex), 3) instruments for the assessment of neuropsychological functions and dysfunctions and their determinants in large scale experimental studies and population research (e.g., SLC-90, Quality of Life Scales, MAAS survey scales).

*Instructional Approach*

Lectures, demonstrations, practicals and working group discussions

*Form of Assessment*

Report on the procedures, approach, dependent variables and problems presented through the practicals

**457 NP    Neuropsychological and Neuropsychiatric Instruments II: Cognitive tasks and neuropsychological tests – 1 Credit**

Coordinator: Bart Scholtissen, Psychiatry & Neuropsychology, Tel. (043) 38 84100, Dr Tanslaan 10, Room 4.E3.007, E-mail: b.scholtissen@np.unimaas.nl

The aim of this training is to get an overview of cognitive tasks and neuropsychological tests which are used in experimental and clinical neuropsychological research and to acquire basic skills in the use of some major instruments

The course consists of four meetings. In the first meeting, an overview will be presented of the instruments which are relevant for experimental and clinical neuropsychological research. The second through fourth meeting will be devoted to three classes of instruments and their strengths and weaknesses. Examples will be provided on the various possibilities with respect to the choice of instruments. Hands on experience will be provided with respect to measures used for data-reduction, data-analysis, scoring and the use of norms. The three domains are, respectively 1) cognitive neuropsychological methods, notably basic and complex reaction time measurements which are based upon experimental/cognitive psychology (emphasis on measurement of attention and psychomotor functioning as well as basic infor-

mation processing speed), 2) experimental neuropsychological methods used in clinical research for the assessment of memory functions and executive functioning, 3) neuropsychological methods used for experimental clinical research including intervention research (other cognitive domains, testbatteries in parallel versions). The skills course complements the skills 1 and 2 courses and the workshop on advanced neuropsychological testing and elaborates on the methods and their possibilities.

*Instructional Approach*

Lectures, demonstrations, practicals and working group discussions

*Form of Assessment*

Report on the procedures, approach, dependent variables and problems presented through the practicals

**551 NP Neuropsychological Treatment Intervention (Elective) – 1 Credit**

Coordinator: Caroline van Heugten, Psychiatry & Neuropsychology, Tel. (043) 38 84091, Dr. Tanslaan 10, Room 4.E3.017, E-mail: C.vanHeugten@irv.nl

The aim of this training is to get an overview of designs used in clinical and experimental neuropsychological intervention studies and into the diverse possibilities with respect to both cognitive/behavioural interventions (e.g., training, courses) and biological interventions (e.g., nutritional and psychopharmacological interventions).

The course will address both the content of neuropsychological interventions as well as the procedures and designs that can be used for the execution of 'evidence-based research'. Through the meetings, an elaboration will be given on the basic premises, and the basic 'pitfalls' in this type of research and the possibilities to circumvent these problems by proper choice of approach and design. Various designs are compared with their strengths and weaknesses (e.g., experimental studies, quasi-experimental designs, intention-to-treat, single case designs, challenge-studies, depletion studies). The various meetings are devoted to the following domains: 1) neuropsychological training and rehabilitation, 2) neuropsychological psycho-education, 3) 'cognitive' approaches and 'eclectic' courses, 4) nutritional and psychopharmacological interventions. Through the meetings, information will be provided with respect to Medical Ethical aspects and hands on experience in submitting a METC protocol including 'information for the patient'. In addition, examples will be provided.

*Instructional Approach*

Group meetings including lectures, demonstrations, practicals and working group discussions

*Form of Assessment*

Report on the procedures, approach, dependent variables and problems presented through the practicals and short exam containing four open questions

**552 NP ERP (Elective) – 2 Credits**

Coordinator: Fren Smulders, Experimental Psychology, Tel. (043) 38 81909, 40 Universiteitsingel East, Room 3.744, E-mail: f.smulders@psychology.unimaas.nl; Mart Bles, Neurocognition, Tel. (043) 3884042, Universiteitsingel 40 East, Room 4.749, Email: m.bles@Psychology.unimaas.nl

The aim of this training is to give the students hands-on experience with the experimental design, acquisition and analysis of EEG/ERP experiments. First, students will be introduced into the possibilities and limitations of EEG and ERP research: how to set up a proper experimental paradigm, and how to interpret the resulting data. Furthermore, students receive a general introduction into basic signal analysis, and into some specific analyses of EEG and ERP (artefact management, spectral analysis, filtering, ERP averaging, etc.). After that, there will be a hands-on training in smaller groups in running an ERP experiment, including electrode application, minimizing artifacts, and hygiene and safety in the lab. A simple paradigm will be used that gives reliable results even for a single subject. Data processing will include various EEG analyses that are commonly used, e.g., analyses in the time and frequency domain. Each group will report (also to each other) and discuss their findings.

*Literature*

Handbook: To be specified  
Additional papers (to be assigned)

*Practical*

Practical sessions for EEG measurement and data analysis

*Instructional Approach*

Lecture(s) (ERP and basics of signal processing), tutorial groups (study the literature), a lab-session (measurement), and computer-sessions (analysis)

*Form of Assessment*

Short report (2-4 pages) in abbreviated article-form (introduction-methods-results-discussion)

**553 NP Data management (Elective) – 1 Credit**

Coordinator: Arjan Blokland, Neurocognition, Tel. (043) 38 81903, 40 Universiteitsingel East, Room 2.731, E-mail: a.blokland@psychology.unimaas.nl

The aim of this skills training is to acquire basis skills in data management. After doing your scientific research, data have to be prepared for data analysis. Usually, the format of the data acquisition software does not match the requirements of sophisticated statistical software packages (e.g., SPSS or SAS). In this Skill training students will be familiarized with the software package Excel. This program has many features that can be very helpful to overcome time-consuming formatting of data bases. First, an introduction of the basic features of Excel will be presented. Being familiar with these basic aspects is necessary to understand copying of values and formulas (relative or absolute). Also, Excel enables you to make various types of graphs which can be very helpful in making a quick outlook on your data. A fourth aspect that will be dealt with is pivot tables, which is a very helpful tool to organise your data in any manner you find most suitable for your further data handling. A final option that will be dealt with is the use of macro's. These are especially helpful when repetitious changes in layout or recalculations have to be made.

#### *Instructional Approach*

Group meetings in which direct demonstrations are given via PC/beamer. Students may provide the instructor data to be used as examples

#### *Form of Assessment*

Written assignment

### **3.4 MT&S WORKSHOPS**

#### **461 NP Research Theory and Designs – 1 Credit**

Coordinator: Jelle Jolles, Psychiatry & Neuropsychology, Tel. (043) 38 81041, Dr Tanslaan 10, Room 4.E3.002, E-mail: j.jolles@np.unimaas.nl; Bart Scholtissen, Psychiatry & Neuropsychology, Tel. (043) 38 84100, Dr Tanslaan 10, Room 4.E3.007, E-mail: b.scholtissen@np.unimaas.nl

The aim is to provide the student a basic understanding of the theoretical and practical issues which are important for the execution of 'evidence-based' intervention research in the domain of brain & behaviour.

This workshop will elaborate on basic issues of research theory and methodology of scientific research with a focus upon the domain of brain & behaviour. There are four sessions. The first session is devoted to a comprehensive review of issues involving the empirical cycle, epistemology, explanatory power and appeal of theories, and deriving hypotheses from theories. The second through fourth session will provide an in-depth evaluation of theoretical and methodological issues in brain & behaviour

research, notably cognitive and clinical neuropsychology/neuropsychiatry. The following issues will be addressed: 1) issues related to the similarities and differences in approaches, conceptualisations, and theoretical background in the various domains of neuropsychology (e.g., cognitive/experimental, clinical, medical, developmental neuropsychology, cognitive neuroscience, basic neuroscience and clinical neuroscience) 2) issues related to causality (e.g., causal or correlative inferences), 3) issues related to the multifactorial nature of cognitive/behavioural functioning (e.g., biological versus environmental determinants, 'nature versus nurture', risk factors and protective factors), 4) issues related to possibilities for execution of neuropsychological research (designs, short overview of statistical approaches).

*Instructional Approach*

Discussion groups, formal presentations, use of research reports and publications as 'discussion material'

*Form of Assessment*

Written assignment

**462 NP    Advanced Statistics – 4 Credits**

Coordinator: Gerard van Breukelen, Methodology and Statistics, Tel. (043) 38 84001, 40 Universiteitssingel East, Room 5.743, E-mail: gerard.vbreukelen@stat.unimaas.nl

Throughout the course, the General Linear Model will serve as a continuous thread. During the first five days, participants will be given an in-depth training in standard statistical methods such as factorial ANOVA for between- and within-subject designs, multivariate ANOVA, discriminant analysis, and multiple regression. Pre-science of two-way factorial ANOVA and multiple regression at the bachelor level of, say Psychology or Health Sciences at Maastricht University, will be presumed and these methods will be briefly reviewed. The following advanced topics will furthermore be covered in these five days: unbalanced factorial designs, covariates, contrast analysis in ANOVA, interaction, nonlinearity and dummy coding in regression, collinearity and residuals checks, data transformation, multivariate ANOVA and discriminant analysis. Five other course days give an introduction to two advanced methods of analysis that become increasingly important to psychology: mixed (multilevel) linear regression for nested designs and longitudinal studies, and structural equations modeling (SEM, sometimes called LISREL). Finally, the important topic of optimal design and sample size is introduced in a one-day training.

*Literature*

For each course day we will use the handout of the lecture plus a suitable book chapter or article. Details of these will be given in time on Blackboard.

Fox (1997) and Kleinbaum (1998) give a fair impression of the content and level of the first course half.

#### *Instructional Approach*

Each meeting starts with a lecture (2 hours), followed by self-tuition (2 hours) in the morning. Each afternoon some computer exercises will be done, followed by a plenary discussion session. Participants are supposed to prepare themselves for each session by reading the handout or literature. Staff will vary between, but not within weeks, so it will always be clear whom to address for technical questions. General issues can be discussed with the course coordinator.

#### *Form of Assessment*

Open-book multiple-choice exam will consist of questions resembling the exercises (general theory, some elementary computations, interpretation of computer output).

#### *References*

Fox, J. (1997). Applied regression analysis, linear models, and related methods. Thousand Oaks (CA): SAGE.

Kleinbaum, D.G., Kupper, L.L., Muller, K.E., & Nizam, A. (1998). Applied regression analysis and other multivariable methods. 3rd ed. Pacific Grove (CA): Brooks/Cole.

### **463 NP    Advanced Neuropsychological Testing – 1 Credit**

Coordinators: Sven Stapert, Neurocognition, Tel. (043) 38 81912, 40 Universiteits-singel East, Room 2.731, E-mail: s.stapert@psychology.unimaas.nl

In this workshop the aim is to train students in the use of neuropsychological tests and interpretation of data in relation to a conceptual model of brain-behaviour relationships. The constructs and assessment of higher cognitive functions will be discussed. Hands-on experience with cognitive testing is part of the workshop. Models of cognitive psychology, including models of memory, attention, language, information processing, and intelligence are reviewed. Special focus is put on test paradigms from the field of clinical neuropsychology used to probe domain-specific functions.

#### *Instructional Approach*

Practical in neuropsychological assessment.

Distinguishing neurological, psychiatric and test-taking conditions: presentations by clinical neuropsychologists, discussing clinical cases.

#### *Form of Assessment*

Interpretation of neuropsychological test-data in a short paper

**464 NP Research Ethics – 1 Credit**

Coordinators: Eef Theunissen, Neurocognition, Tel. (043) 38 81940, 40 Universiteits-singel East, Room 2.735, E-mail: e.theunissen@psychology.unimaas.nl; Silvia Evers, Tel. (043) 38 84593, 40 Universiteitssingel East, Room 5.732a, E-mail: s.evers@psychology.unimaas.nl

Students will learn to think critically about ethical dilemmas that psychologists encounter when exercising their profession. This workshop will discuss legal and ethical conflicts that are involved in psychological research and clinical practice. Students will be introduced to the ethical and legal rules and boundaries in human research, and to the organisations and institutes supervising the application of these rules.

Psychologists always need to make sure that they carry out their work in an ethical and legally sound way. However, there is often a conflict of interests of the involved parties. In all circumstances, however, it is the psychologist's primary task to secure the patients/participants welfare and to keep risks at to a minimum. Therefore psychologists should know which ethical aspects are of importance and which laws and rules need to be applied and also which institutions supervise on the application of these rules. In addition, these aspects should be taken into consideration when writing and submitting a research proposal to an ethical commission.

The following topics will be discussed:

- Examples of ethical and legal failings
- Necessity of ethical and legal rules
- Different guidelines: declaration of Helsinki, guidelines for Good Clinical Practice, etc.
- Working with participants/patients: rights and duties, confidentiality, data processing and storage, etc.
- Applying ethical and legal rules in e.g., protocol, case report form, informed consent, etc.
- Ethical and legal reviews

*Instructional Approach*

Lectures and discussion groups

*Form of Assessment*

Written assignment

**465 NP Epidemiology – 1 Credit**

Coordinators: Marcus Huibers, Medical Clinical and Experimental Psychology, Tel. (043) 38 81487, Universiteitssingel 50, Room 1.353, E-mail: m.huibers@dmkep.unimaas.nl



Epidemiology often is referred to as “quantitative medicine”. In general, epidemiology deals with methodology issues in the field of health research, including mental health. Students in this workshop will be introduced to the principles of epidemiological research. Topics that are covered in the workshop include: frequency measures, association measures, sources of bias, validity issues, cohort studies, clinical trials, and systematic reviews. The theory of epidemiology will be studied and applied in interactive workshop sessions.

#### *Instructional Form*

Format of the workshop is a series of 2-hour sessions. Starting each session, the lecturer will give a 30-minute presentation of the topics covered in that session, followed by a 30-minute discussion of these topics. The second hour will be spent on group assignments under supervision of the lecturer.

Required reading will consist of several chapters from a clinical epidemiology textbook and additional research papers. In addition to the workshops sessions, students are expected to spend at least 5 hours a week on reading and homework assignments.

#### *Form of Assessment*

Group assignment:

During the entire workshop, students will work on a research proposal in groups of three or four (depending on the number of students). Students will prepare the proposal during the sessions; the remainder of the work is part of the homework assignments. At the end of the fourth session, each group will give a 10-minute presentation, after which the written proposal is handed in. The lecturer will evaluate the research proposals.

#### **466 NP    Imaging – 2 Credits**

Coordinator: Elia Formisano, Neurocognition, Tel. (043) 38 84040, 40 Universiteits-singel East, Room 4.738, E-mail: e.formisano@psychology.unimaas.nl

This workshop is intended to provide:

- introductory knowledge of the basic principles underlying the most common imaging methods
- appreciation of potentialities and limitations of various neuroimaging methods in studying human brain functions and dysfunctions.

The investigation of human brain anatomy and functions using a range of imaging methods represents the most influential development in Psychology in the last years. In this workshop essential facts about all major structural and brain mapping techniques, including Positron Emission Tomography (PET) and SPECT, structural and

functional Magnetic Resonance Imaging (fMRI) will be reviewed. The focus will be on the strengths and weaknesses of each of these methods and on the description of relevant applications in the normal and pathological brain.

*Instructional Approach*

Lectures, paper discussion, and demonstration visit to the MRI scanner

*Form of Assessment*

Open questions

**467 NP Psychopharmacology – 1 Credit**

Coordinators: Wim Riedel, Neurocognition, Tel. (043) 38 84322, 40 Universiteits-  
singel East, Room 2.755, E-mail: w.riedel@psychology.unimaas.nl; Brian Leonard

The workshop aims to present Psychopharmacology in a broad sense. The multidisciplinary nature of psychopharmacology encompasses pharmacology, molecular biology, genetics, physiological psychology, experimental, clinical and cognitive neuropsychology and biological psychiatry. The emphasis will be on understanding drug development, drug action, drug research, animal and human pharmacological models of clinical disorders, experimental / clinical trial design and the development of biomarkers, real measures and surrogate measures of drug efficacy.

The course will focus on major areas in Psychopharmacology such as Addiction, Depression, Anxiety, Psychosis and Cognition. These areas will be illuminated from both the perspectives of basic neuroscience including animal subjects as well as experimental and clinical human psychopharmacology.

*Instructional Approach*

Each half-day the programme will consist of a sequence of three elements:

- Key-note Lectures by Internationally renowned speakers in the morning
- Presentations of recent research by PhD students or junior researchers
- Forum discussions about the presentations

The workshop offers plenty of opportunity for the Masters student to interact with PhD students, junior and senior staff and the invited guest speakers

*Form of Assessment*

Short presentation in the forum discussion and written assignment

**561 NP Protocol Writing – 2 Credits**

Coordinator: Herman Schaalma, Experimental Psychology, tel. 38 84329,  
Universiteitssingel 5, k. 3.001, e-mail: h.schaalma@psychology.unimaas.nl

During this course, students will be familiarized with the different phases of writing scientific protocols and research reports. In advance of their upcoming masters thesis, they will learn to define and crystallize a research question based on its feasibility and scientific relevance; to prepare and structure their arguments and to plan the different parts of the paper; to think about suitable designs and research methods for data acquisition and analysis, and, finally, to learn how to walk through the writing process starting from draft to the final version. This all will be accomplished by competence-based learning in which they have to integrate factual knowledge (from the literature) into skill-based practice (by exercise).

#### *Instructional Approach*

A combination of introductory lectures, literature meetings and practical sessions

#### *Form of Assessment*

Written research proposal

### 3.5 SCHEDULE NEUROPSYCHOLOGY

YEAR 1	
Weeks	
1 week	Introduction Week
7 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology (4 credits) <b>Core Courses:</b> Brain Damage (4 credits) & Behavioural Disorders (4 credits) <b>Skills Training:</b> Neuropsychological Assessments (2 credits) <b>Colloquia</b> (5 credits)
7 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology <b>Core Courses:</b> Cognitive Aging (4 credits) & Arousal, Attention, and Psychopharmacology (4 credits) <b>Skills Training:</b> Basic Cognitive Psychological Skills (2 credits) <b>Colloquia</b>
CHRISTMAS BREAK	
4 weeks	<b>Core Course:</b> Biopsychology (3 credits) <b>Workshop:</b> Research Theory and Designs (1 credit) <b>Workshop:</b> Advanced Statistics (4 credits) <b>Skills Training:</b> Neuroanatomy (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Brain, Learning, and Memory (3 credits) <b>Workshop:</b> Advanced Neuropsychological Testing (1 credit) <b>Workshop:</b> Advanced Statistics <b>Skills Training:</b> E-prime (1 credit) <b>Colloquia</b>

4 weeks	<b>Core Course:</b> Executive Function and Control of Action (3 credits) <b>Workshop:</b> Research Ethics (1 credit) <b>Workshop:</b> Advanced Statistics <b>Skills Training:</b> Psychophysiological Skills (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Neuropsychiatric Disorders (3 credits) <b>Workshop:</b> Epidemiology (1 credit) <b>Workshop:</b> Imaging (2 credits) <b>Skills Training:</b> Neuropsychological and Neuropsychiatric Instruments I (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Neuropsychopharmacology (3 credits) <b>Workshop:</b> Psychopharmacology (1 credit) <b>Skills Training:</b> Neuropsychological and Neuropsychiatric Instruments II (1 credit) <b>Colloquia</b>
<b>YEAR 2</b>	
4 weeks	<b>Core Course:</b> Cognitive Development (3 credits) <b>Workshop:</b> Protocol Writing (2 credits) <b>Skills Training:</b> Neuropsychological Treatment Intervention (1 credit) - Elective <b>Skills Training:</b> ERP (2 credits) – Elective 7 weeks
4 weeks	<b>Core Course:</b> Brain, Cognition, and Mental Health (3 credits) <b>Workshop:</b> Protocol Writing <b>Skills Training:</b> Data Management (1 credit) - Elective
32 weeks	<b>Research Internship &amp; Masters Thesis</b> <b>Optional: Clinical Internship &amp; Minors Thesis (50 credits)</b>

**401 NP & 403 NP- Trends-in courses:** 11th September-11th December 2006

**404 NP - Colloquia:** 15th September 2006- 15th June 2007

### Core Courses

**441 NP** - Brain Damage: 11th September- 26th October 2006

**442 NP** - Behavioural Disorders: 11th September- 26th October

**443 NP** - Cognitive Aging: 30th October- 14th December

**444 NP** - Arousal, Attention, and Psychopharmacology: 30th October- 14th December

**445 NP** - Biopsychology: 8th January- 1st February 2007

**446 NP** - Brain, Learning, and Memory: 5th February- 8th March

**447 NP** - Executive Function and Control of Action: 12th March- 5th April

**448 NP** - Neuropsychiatric Disorders: 16th April- 14th May

**449 NP** - Neuropsychopharmacology: 21st May- 18th June

**541 NP** - Cognitive Development: 3rd September- 27th September

**542 NP** - Brain Cognition and Mental Health: 31st September – 24th October

### **Skills Trainings**

**451 NP** - Neuropsychological Assessments: 15th September- 27th October 2006

**452 NP** - Basic Cognitive Psychological Skills: 3rd November- 15th December

**453 NP** - Neuroanatomy: 12th January- 2nd February 2007

**454 NP** - E-prime: 9th February- 9th March

**455 NP** - Psychophysiological Skills: 16th March- 5th April

**456 NP** - Neuropsychological and Neuropsychiatric Instruments I: 20th April- 11th May

**457 NP** - Neuropsychological and Neuropsychiatric Instruments II: 25th May- 15th June

**551 NP** - Neuropsychological Treatment Intervention (Elective): 7th September- 28th September

**552 NP** - ERP (Elective): 15th September- 27th October

**553 NP** - Data Management (Elective): 4th October- 25th October

### **Workshops**

**461 NP** -Research Theory and Designs: 9th January- 30th January 2007

**462 NP** -Advanced Statistics: 10th January – 18th April

**463 NP** -Advanced Neuropsychological Testing: 6th February- 6th March

**464 NP** -Research Ethics: 13th March- 3rd April

**465 NP** -Epidemiology: 17th April- 8th May

**466 NP** -Imaging: 15th May - 16th May

**467 NP** -Psychopharmacology: 22nd May- 23rd May

**561 NP** -Protocol Writing: 4th September- 23rd October





# 4

## Abnormal Psychology



Prospectus Research Master 2006-2007



The specialisation in Abnormal Psychology provides students the theoretical background and clinical insights necessary for future research in the various fields related to mental health; in particular experimental psychopathology, clinical psychology, and psychiatry. The interactive core seminars cover biopsychosocial theories and state-of-the-art research on the epidemiology, genetics, psychological and neurobiological mechanisms underlying onset and course, treatment, and prevention of mental disorders throughout the life cycle. In addition to coverage of specific disorders, attention is paid to positive psychology and to broader issues and controversies, such as gender and cultural differences, the validity of experimental and animal models of psychopathology, and gene-environment interactions. The programme includes training in diagnostic and other clinical skills, as well as research experience in health care settings. The possibility of choosing course elements from the other two specializations affords students not only an in-depth understanding of the multidisciplinary approaches to psychopathology but also the opportunity to tailor the programme along the lines of their personal research interests.

**Abnormal Psychology Coordinator:** Nancy Nicolson, Psychiatry and Neuropsychology, Tel. (043) 36 88684, Vijverdal, Room SN2.068, E-mail: n.nicolson@sp.unimaas.nl

**Colloquia Coordinator:** Anne Roefs, Experimental Psychology, Tel. (043) 38 82191, 40 Universiteitssingel, Room 3.747, E-mail: a.roefs@psychology.unimaas.nl

#### 4.1 TRENDS-IN COURSES

##### 401 AP Trends-in Cognitive Neuroimaging – 2 Credits

Coordinator: Alex Sack, Neurocognition, Tel. (043) 38 84267, 40 Universiteitssingel East, Room 4.765, E-mail: a.sack@psychology.unimaas.nl

Cognitive neuroimaging is an entirely new research field that originally emerged from a combination of traditional sciences such as philosophy, psychology, medicine, and biology that all investigate the principles of perception, behaviour and cognition from different perspectives. As technical developments of different methods and tools in the field of cognitive neuroimaging came forth, and as theoretical application of different mathematical and computer science-based models were used to explain neuronal functioning, additional disciplines, such as physics, mathematics, bioengineering, and computer science materialized as an important part of this research field. Subsequently, an effective research project in cognitive neuroimaging requires an interdisciplinary cooperation.

This Trends-in course will provide students with a broad overview over the general research approaches, methods and techniques as well as applications in the field of



Cognitive Neuroimaging. Presented and discussed topics will range from neuronal bases of perception, attention and mental imagery, language and self-monitoring, as well as clinical investigations of dyslexia.

Trends-in lectures are provided by:

- Rainer Goebel
- Elia Formisano
- Alex Sack
- Leo Blomert
- Peter de Weerd
- Bernadette Jansma

#### **402 AP Trends-in Neuropsychology – 2 Credits**

Coordinator: Jan Ramaekers, Neurocognition, Tel. (043) 38 81951, 40 Universiteits-singel East, Room 2.736, E-mail: [j.ramaekers@psychology.unimaas.nl](mailto:j.ramaekers@psychology.unimaas.nl)

Neuropsychology focuses on the relationship between brain and behaviour. The so-called brain-behaviour relationships are addressed on a continuum ranging from normal to deviant in children, adolescents, and patient populations. In addition, in the context of psychopharmacology biological mechanisms are studied which pertain to neurotransmitters, hormones and drugs acting upon cognitive function and behaviour. An integrated series of lectures will be presented that includes most aspects of basic and applied neuroscience. The Trends-in-Neuropsychology lectures will provide students with a broad overview of the multidisciplinary research field of Neuropsychology. Presented topics will include the neuropsychology of neurological and psychiatric disorders, cognitive aging and development, motor action and executive control, and pharmacological models of cognitive dysfunction.

Trends-in lectures are provided by:

- Jelle Jolles
- Frans Verhey
- Jan Ramaekers
- Jos Adam
- Martin van Boxtel
- Harry Steinbusch
- Chantal Kemmer

**4.2 CORE COURSES****471 AP Anxiety Disorders – 3 Credits**

Coordinator: Arnoud Arntz, Medical Clinical and Experimental Psychology, Tel. (043) 38 81606, Universiteitssingel 50, Room 1.308, E-mail: arnoud.arntz@mp.unimaas.nl

This seminar covers the main findings and controversies related to the anxiety disorders. While treatment issues are dealt with, the emphasis of the course is on biological and psychological mechanisms that are involved in the origin and maintenance of the various anxiety disorders.

Both in North America and in West Europe anxiety disorders are the largest group of mental disorders for which patients are referred and anxiety disorders are relatively well studied, well understood and treatment outcome is relatively favourable. As to the etiology the focus will be on the role of life events, genetics and stable personality features in the origin of anxiety disorders. With regards to the maintenance of the disorders the course concentrates first of all on anxiety related aberrations in the processing of negatively valenced information. Such selective processing is studied with regards to perception, attention, memory, reasoning and interpretation. Furthermore students study the maintaining role of 'safety behaviours': attempts to prevent a feared catastrophe with the ironic effects that anxiety is reinforced. Throughout the course the role of the various neurotransmitters in the anxiety disorders are highlighted. Students are trained in the use of various experimental (laboratory) paradigms that are typically employed in the study of the cognitive psychology/biological psychology of anxiety disorders: Carbon dioxide inhalation, dot-probe methodology, various tests to measure interpretation biases etc.

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations

*Form of Assessment*

Written papers and presentations

**472 AP Mood Disorders – 3 Credits**

Coordinator: Frenk Peeters, Psychiatry and Neuropsychology, Tel: (043) 38 77444, Dr. Tanslaan 10, Room: 3.G4.042, E-mail: f.peeters@sp.unimaas.nl

This course is intended to give the student an overview of current concepts and research in the field of mood disorders. In the last decades, it has become increasingly clear that mood disorders are chronic psychiatric disorders characterized by acute

episodes, relapses, recurrences, and residual symptomatology. Both onset and course of mood disorders are the result of complex interactions between distal (e.g., genetic and developmental) and proximal (e.g., severe life-events) risk factors. This is illustrated by discussion of mood disorders across the life span in the light of biological, psychological, and social approaches. Current research strategies aimed at clarifying the role of these different aspects will be the central theme throughout the course. Based on this framework, state-of-the-art treatments for mood disorders are addressed and illustrated where possible.

#### *Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations. Presentations will be based on short papers. Additionally students will write research proposals that will be presented during the last meetings.

#### *Form of Assessment*

Attendance, participation in discussions, presentations, and writing and presenting a research proposal

### **473 AP    Stress and Trauma – 3 Credits**

Coordinator: Nancy Nicolson, Psychiatry and Neuropsychology, Tel. (043) 36 88684, Vijverdal, Room SN2.068, E-mail: n.nicolson@sp.unimaas.nl

This seminar familiarizes students with key concepts and controversies in current stress research, with an emphasis on the role stress is thought to play in the etiology, pathophysiology, and the course of psychiatric and psychosomatic disorders. The following issues will be discussed:

- What is stress? Theoretical background and translation of the construct into research design and methods
- Adaptation to stress: normal psychological and biological processes, allostasis
- Does stress cause psychiatric / psychosomatic disorders? Evidence and possible pathways
- Long-term effects of adverse early experience: what can we learn from animal models and epidemiological studies?
- Why are some individuals more vulnerable (or more resilient) to stress than others?
- Post-traumatic stress disorder: controversies concerning the concept of trauma, biological and psychological processes, treatment and prevention

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations

*Form of Assessment*

Participation, editorial review, presentation, and research proposal

**474 AP Developmental Psychopathology – 3 Credits**

Coordinator: Kathleen Restifo, Medical Clinical and Experimental Psychology, Tel. (043) 3881733, Universiteitssingel 50, Room 1.354 E-mail: k.restifo@dmkep.unimaas.nl

This seminar aims to give the student an up-to-date overview of classification of child psychopathology, etiological models and evidence-based treatment options.

*Topics*

- Classification:
  - internalizing disorders: anxiety disorders and depression
  - externalizing disorders: ADHD, ODD, CD (oppositional defiant and conduct disorder)
  - learning and other developmental disorders
- Etiological factors:
  - genetics, organic/neurological factors
  - the role of rearing factors in child psychopathology
  - family functioning and the role of parental psychopathology
  - the role of life events
- Treatment
  - Cognitive-behavioral
  - Family/systems
  - Psychodynamic/supportive
  - Educational remediation

*Instructional Approach*

The seminar consists of two 2-hour interactive meetings per week, including lectures, group discussions, and student presentations.

*Form of Assessment*

Written papers and presentations

**475 AP Somatoform Disorders – 3 Credits**

Coordinator: Johan Vlaeyen, Medical Clinical and Experimental Psychology, Tel. (043) 38 81601, Universiteitssingel 50, Room 1.316, E-mail: j.vlaeyen@dep.unimaas.nl

This seminar familiarizes the student with key concepts and controversies in current research in somatoform disorders, with an emphasis on the cognitive and behavioural mechanisms that play a role in the etiology and maintenance of chronic pain and fatigue.

*Topics*

- Biomedical and biopsychosocial models of health and illness
- Controversies in the assessment of physical complaints
- Overview of somatoform disorders
- Common mechanisms of unexplained complaints: a symptom perception approach
- The role of catastrophic misinterpretations of bodily sensations
- The role of attribution, attention, and affect
- Chronic pain and fatigue: psychological models
- Cognitive-behavioural treatments of somatoform disorders
- Coping or acceptance
- Self-management strategies

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations. Students work in team of two on an 8-10 page research paper. The final meeting is a symposium during which students present their research papers (10 minute presentations and 5 minutes for discussion).

*Form of Assessment*

Participation in discussions, research paper, and presentation of the research paper

**476 AP Psychosis – 3 Credits**

Coordinator: Jim van Os, Psychiatry and Neuropsychology, Tel. (043) 38 75443, Dr. Tanslaan 10, Room 3.G4.044, E-mail: j.vanos@sp.unimaas.nl

This seminar aims to give the student an overview of current thinking and unresolved issues in schizophrenia research. The process of psychotic disorder and psychosis transition has been the subject of intense study in the last decade. Early epidemiological approaches have been complemented with studies of cognition and neuroimaging and, finally, treatment trials. There is now evidence to suggest that the onset of psychotic disorder is the endpoint of a process of interactive etiological forces that involve genetic background factors associated with low grade, non-clinical expres-

sion of psychosis in the general population, environmental stressors such as cannabis use and psychological trauma, and a number of cognitive vulnerabilities in the realm of neuropsychology and social cognition. In addition, it is now increasingly clear that the process of onset of psychosis is associated with neurocognitive changes and progressive sensitization to dopaminergic stimulation, greater quantities of which may predict subsequent brain changes and poorer outcome.

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations

*Form of Assessment*

Written papers, presentation, and research proposal

**477 AP Eating Disorders – 2 Credits**

Coordinator: Anita Jansen, Experimental Psychology, Tel. (043) 38 81910, 40 Universiteitssingel East, Room 3.731, E-mail: a.jansen@psychology.unimaas.nl

This course aims to give the student a state-of-the-art overview of current thinking and unresolved issues in research on eating disorders, with an emphasis on experimental psychopathology research.

Eating disorders are among the most prevalent disorders in female adolescents and young adults. The exact aetiologies are largely unknown, although it has become evident that a range of factors influence an individual's vulnerability to eating disorders (ranging from genetic to environmental factors). With respect to these vulnerability factors, some may be specific to eating disorders, but there may also be more general factors (e.g., behavioural disinhibition) that make an individual more vulnerable to both eating disorders and addictions

A first aim of this course is to discuss influential theories and empirical papers about the origin or maintenance of eating disorders. Second, special attention will be paid to experimental psychopathology research methods as an elegant method to test hypotheses on the origin, maintenance or reduction of these disorders. Third, the gap with clinical practice is scrutinised. What is the best treatment a patient can get? And why is it so difficult to implement the evidence-based treatments in clinical practice?

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations.

*Form of Assessment*

Written papers, presentation, and discussion papers

**478 AP    Addiction – 2 Credits**

Coordinator: Reinout Wiers, Experimental Psychology, Tel. (043) 38 81935, 40 Universiteitssingel East, Room 3.732, E-mail: r.wiers@psychology.unimaas.nl

This seminar aims to give the student a state-of-the-art overview of current thinking and unresolved issues in research on addictive behaviours, with an emphasis on experimental psychopathology research. Addictive behaviours are one of the most prevalent psychiatric disorders. In young males it is even by far the most prevalent psychiatric disorder. In history, the explanation of addictive behaviours has moved from the person (weak character) to the substance (e.g., stories about sweets with heroin to hook kids), to the environment (bad examples from parents or peers), to genetic factors, and models combining some of these factors. The course will touch upon recent addiction research, including genetics, models of craving and tension reduction, expected vs. pharmacological effects, the role of implicit and explicit cognition in the etiology of addiction, prevention and treatment.

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations.

*Form of Assessment*

Written papers and abstracts, and presentation and research proposal

**479 AP    Psychopathology and the Law – 2 Credits**

Coordinator: Corine de Ruiter, Experimental Psychology, Tel. (043) 38, 40 Universiteitssingel East, Room 3.777, E-mail: corine.deruiter@psychology.unimaas.nl

Psychology and law are fundamentally different disciplines, which has great impact on the work of the forensic psychologist. In this seminar, recent research on forensic psychological issues will be related to actual cases, including video material. Emphasis will be on the assessment and treatment of mentally disordered offenders, and on the sometimes crucial role the forensic psychologist plays in judicial decision making. In specific, we will pay attention to:

- The concept of criminal responsibility and the assessment of it
- The relationship between mental disorders and violence; violence risk assessment
- Psychopathy
- Antisocial behaviour in women
- Treatment of sexual offenders

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations.

*Form of Assessment*

Participation in discussions, written paper and presentation with fellow student

**571 AP Personality Disorders – 3 Credits**

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Coordinator: David Bernstein, Medical Clinical and Experimental Psychology, Tel. (043) 38 81483, Universiteitssingel 50, Room 1.328, E-mail: d.bernstein@dmkep.unimaas.nl

This seminar aims to give the student a state-of-the-art overview of theories, classification issues, and treatment models of personality disorders, with an emphasis on current scientific debate on these issues.

*Topics*

- Personality theories relating to personality disorders
- Biological models of personality disorders (including genetic and neurotransmitter models)
- Psychological models of personality disorders (modern psychodynamic, conditioning, cognitive, interpersonal, integrative models)
- Sociological perspectives on personality disorders
- Classifications issues (DSM-IV diagnosis; axis-1 vs. axis-2; categorical vs. dimensional models; polythetic definition; diagnostic techniques)
- Etiological issues
- Epidemiological issues
- Treatment options

*Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures and group discussions

*Form of Assessment*

Written exam

**572 AP Mental Health and Happiness – 3 Credits**

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Coordinator: Madelon Peters, Medical Clinical and Experimental Psychology, Tel. (043) 38 81603, Universiteitssingel 50, Room 1.361c, E-mail: m.peters@dep.unimaas.nl



As a closure of the obligatory psychopathology course trajectory, this course will familiarize students with concepts and ideas from what is sometimes called “positive psychology”. The aim is to provide students with an understanding that even under unfavourable (genetic or environmental) circumstances people can maintain their health and well-being.

#### *Topics*

- Philosophical views of “positive psychology”
- The non-expression of genetic vulnerability for psychiatric disorders
- Resilience factors for mental and physical health: the role of humour, optimism and sense of coherence
- Buffering effects of the social environment on the adverse effects of trauma
- Trauma and personal growth
- Emotional disclosure and (mental) health
- Determinants of happiness
- Cultural differences in the experience of happiness and well-being

#### *Instructional Approach*

The seminar consists of interactive meetings, which consist of lectures, group discussions, and student presentations.

#### *Form of Assessment*

Written assignment

### **4.3 SKILLS TRAININGS**

#### **481 AP Research Practicum – 4 Credits**

Coordinator: Anne Roefs, Experimental Psychology, Tel. (043) 38 82191, 40 Universiteitssingel, Room 3.747, E-mail: a.roefs@psychology.unimaas.nl

The aim of this training is to acquaint students with current research on psychopathology, conducted by senior staff, post-docs, and PhD students in the faculties of Psychology, Health Sciences, and Medicine. During the first year of the research masters programme, students will take part in ongoing research, and will be responsible for a part of that research. Students will work together in small groups. They will be supervised by one or two staff members. By taking part in this practical, students will gain some research experience before conducting their masters and minors thesis research in the second year of the program.

#### *Form of Assessment*

Pass/fail, based on participation equivalent to at least 84 hours and a final written report.

**482 AP Clinical Skills I: Interviewing Skills – 2 Credits**

Coordinator: Inge Drost, Medical Clinical and Experimental Psychology, Tel. (043) 38 81733, Universiteitssingel 50, Room 1.354, E-mail: inge.drost@dep.unimaas.nl

The aim of this training is to teach students basic clinical interview skills needed for interviewing patients with psychopathology. After this training students should be able to execute semi-structured interviews covering chief complaint, more specific follow-up, mental status, developmental and social assessment, diagnoses, and type of treatment requested.

The level of the training will be adapted to the entrance level of the student, to be assessed with a simulated interview.

Students write reports of each training session. These reports are assessed by the trainer and form, after approval, the portfolio for this training.

*Instructional Approach*

Seven 2-3 hour sessions

*Form of Assessment*

Portfolio of written reports and practical assignments

**483 AP Clinical Skills II: Diagnostic Test Procedures – 2 Credits**

Coordinator: Lydia Krabbendam, Psychiatry and Neuropsychology, Tel: (043) 36 88682, Vijverdal, Room: SN2.066, E-mail: l.krabbendam@sp.unimaas.nl;

The aim of this training is to teach students procedures for psychodiagnostic and neuropsychological testing needed for assessing type, severity and extent of psychopathology and neuropsychological problems in individuals with psychiatric disorders. Students will learn to formulate hypotheses, to select appropriate tests, to administer them, and to interpret their outcome. They will acquire skills in writing a formal report and in communicating their conclusions to the patient.

Following an introduction in the main cognitive domains in relation to brain areas and relevant neuropsychological and psychopathological test procedures, the training will focus on five psychiatric disorders, namely, developmental disorders (including disorders of executive functioning and disorders of learning and attention), schizophrenia, bipolar disorder, depression and anxiety, and personality functioning. These conditions will be discussed in relation to the principles of assessment of psychopathology and neuropsychology outlined in the first session and they will be illustrated with case histories. In addition, students will be trained in neuropsychological history taking and test administration which they will perform on trained fellow students who simulate different kinds of psychiatric pathology. Furthermore, stu-

dents will be trained in behavioural observation by watching the neuropsychological examination of different patients on video. Using data from the patient history, test observation and examination results, each student will write a comprehensive neuropsychological report.

*Instructional Approach*

Seven meetings of 3 hours each. The sessions will consist of introductory lectures, presentations by students, discussion of video recordings of neuropsychological examination of different patients as well as the neuropsychological examination performed by students themselves.

*Form of Assessment*

Assessment of students' skills in these areas will be based on observation of their behaviour as well as on their written reports.

**484 AP    Neuroanatomy –1 Credit**

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Coordinator: Jos Prickaerts, Neurocognition, Tel. (043) 38 81026, 40 Universiteitsingel, Room 2.737, E-mail: j.prickaerts@psychology.unimaas.nl

The aim of the training is to become acquainted with the neuroanatomical terminology and to gain insight into the spatial and functional organisation of the brain. It is essential to have a basic knowledge of the brain anatomy when working in the field of neuropsychology or neurobiology. Many specific brain areas can be linked to particular functions. Thus, knowledge of the brain anatomy and its main functions allows one to directly link specific neurological or psychiatric disorders to particular brain areas. After a short theoretical introduction the students will study whole brains and brain material of mammals at both macroscopical (visual inspection) and microscopical level. The emphasis will be on major brain systems including the basal ganglia and limbic system.

*Instructional Approach*

Almost exclusively practical: dissection of sheep brain, studying of microscopical slices of rat brain, working with plastic human brain models, CD-ROM programs, and textbook.

*Form of Assessment*

Exam consisting of at least six open questions

**485 AP    Psychophysiological Skills – 1 Credit**

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Coordinators: Pascal van Gerven, Neurocognition, Tel. (043) 38 84512, 40 Universiteitssingel East, Room 2.742; E-mail: p.vangerven@psychology.unimaas.nl; Eric

Vuurman, Psychiatry & Neuropsychology, Tel. (043) 38 81046, 40 Universiteitssingel East, Room 2.747, E-mail: e.vuurman@psychology.unimaas.nl

The goal of this skills training is to acquire basis skills in major peripheral psychophysiological methods that are used in neuropsychological research and practice and to evaluate the criteria needed to choose psychophysiological methods in neuropsychological research.

The training consists of four meetings. In the first meeting an overview will be presented of the psychophysiological methods which are relevant for Neuropsychology with their possibilities. The second through fourth meeting will be devoted to three major domains in psychophysiology, namely 1) cardiovascular psychophysiology (heart rate, heart rate variability, blood pressure measurements, galvanic skin response), 2) eye movements and pupillometry (e.g., saccadic eye movements, fixations, blink rate and pupil dilation). Through the four sessions, hands on experience will be offered in the laboratory. Basic guidelines about data collection and analysis will be provided. Examples are provided with respect to the relation between basic psychophysiological variables and cognitive variables such as memory load, mental effort, attention, and cognitive (e.g., inhibitory) control.

*Instructional Approach*

Meetings which will include lectures, demonstrations, practicals, and working group discussions

*Form of Assessment*

Report on the procedures, approach, dependent variables and problems presented through the practicals

**581 AP Clinical Skills III: Clinical Interview for the DSM IV (SCID I and SCID II) – 1 Credit**

Coordinator: Reinier Kreutzkamp, Medical Clinical and Experimental Psychology, Tel. (043) 38 81605, Universiteitssingel 50, Room 1.324, E-mail: r.kreutzkamp@dep.unimaas.nl

The aim of this training is to teach students how to conduct the semi-structured clinical interview for the DSM-IV-Tr Axis I (SCID I) and Axis II (SCID II) diagnoses. Students will learn to interpret the outcome of these interviews, to establish differential diagnoses, and to summarize findings in a written report.

*Instructional Approach*

Four 2-3 hr sessions

*Form of Assessment*

Students' skills in the above areas will be assessed on the basis of observation of their interview behavior as well as on their written reports

**582 AP Clinical Skills IV: Intervention Techniques – 1 Credit**

Coordinator: to be announced

The aim of this training is to teach students the basics of evidence-based therapeutic methods for the treatment of relatively simple forms of psychopathology. The level of this training will be adjusted according to the student's previous training and experience.

After this training students should be able to carry out some elementary therapeutic procedures.

*Instructional Approach*

Four 2-3 hr sessions

*Form of Assessment*

Observation of students' skills during a session with a simulation patient

**4.4 MT&S WORKSHOPS****491 AP Ecological Psychiatry – 1 Credit**

Coordinator: Philippe Delespaul, Psychiatry and Neuropsychology, Tel: (043) 36 88685, Vijverdal, Room: SN2.069, E-mail: ph.delespaul@sp.unimaas.nl

The expression of psychiatric symptoms is reflected in an individual's behaviours and private phenomena such as thoughts, perceptions and emotions. Psychiatric deficits reveal themselves in the ongoing interplay between the patient and the everyday environment. As a consequence, most psychopathological expressions are unavailable for direct observations by the clinician. They occur – often in a qualitatively different form - outside of the therapist's office and, because they are private experiences, they should be assessed with self-reports in this natural context ('ecological validity').

The aim of the course is:

- to introduce the field of ecological psychiatry;
- to discuss the methodological and statistical challenges related to research with self-reports in normal living situations;

- to illustrate the applicability of these research methodologies in basic and applied clinical research (using schizophrenia research as the primary reference).

#### *Instructional Approach*

The workshop will combine traditional teaching and work group sessions. During the first week, students will monitor their own behaviour and emotions using the Experience Sampling Method. Meeting 1 will be an introduction and a briefing; meeting 2 will primarily focus on technical aspects of the methodology. In small groups, workshop participants will use these data as the basis for 15-minute presentations, to be given in the final meeting. In addition to the face-to-face meetings, approximately 16 hours will be spent on homework and preparation of group presentations.

#### *Form of Assessment*

Homework assignments and presentation

### **492 AP The Application of Cognitive Methods in Psychopathology Research – 1 Credit**

Coordinator: Anne Roefs, Experimental Psychology (FdP), Phone: (043) 38 82191, Universiteitssingel 40, Room 3.747, E-mail: a.roefs@psychology.unimaas.nl

The goal of this workshop is to introduce the students to the most important paradigms from cognitive psychology that are often used in psychopathology research to study biased cognitive processing. Biased cognitive processes play an important role in many kinds of psychopathology, such as depression, anxiety disorders, and eating disorders. The most intensively studied processes involve attention, memory, interpretation, and associations. To study these processes, experimental paradigms from cognitive psychology have been adapted to the needs of clinical psychology. Most of these experimental tasks involve the measurement of reaction times. Unlike other techniques (e.g., eye-tracking, fMRI, EEG), they are easy to program and often run on a standard PC. This workshop will introduce the students to the most popular tasks in the areas of attention (emotional Stroop task, dot probe task, visual search paradigm), memory (free recall, recognition, word stem completion) interpretation, and associations (Implicit Association Test, (extrinsic) affective Simon Task, affective priming paradigm). At the end of this course, students should know the pros and cons of each task well enough to choose an appropriate task for a given research question, and they should be able to change the features of the chosen task to fit their own research needs.

#### *Instructional Approach*

Before and during the course, students are given a number of introductory papers about the tasks. In the lectures the various paradigms are explained, briefly demonstrated, and applications in several forms of psychopathology are discussed. An

important aspect of the lectures will be a discussion of the pros and cons of the various paradigms. Besides the two lectures, students will do a short practical. In the first lecture they are given an extensive introduction to this practical. The practical will consist of a 1 hour lab session in which the paradigm, computer program, and testing procedure is explained. Each team of two or three students will then be responsible for the recruitment and testing of 4 participants (in 1 session, 4 computers are available in 1 room). On the final day of this training, students will analyze and interpret their own data set. They will also produce an overview of results, write a brief discussion on the results, and give a critical evaluation of the paradigm that was used.

*Form of Assessment*

Pass/fail, on the basis of report that is written during the final day of the training

**493 AP Research Theory and Designs – 1 Credit**

Coordinator: Jelle Jolles, Psychiatry & Neuropsychology, Tel. (043) 38 81041, Dr Tanslaan 10, Room 4.E3.002; E-mail: j.jolles@np.unimaas.nl

The aim is to provide the student a basic understanding of the theoretical and practical issues that are important for the execution of 'evidence-based' intervention research in the domain of brain & behaviour.

This workshop will elaborate on basic issues of research theory and methodology of scientific research with a focus upon the domain of brain & behaviour. There are four sessions. The first session is devoted to a comprehensive review of issues involving the empirical cycle, epistemology, explanatory power and appeal of theories, and deriving hypotheses from theories. The second through fourth session will provide an in-depth evaluation of theoretical and methodological issues in brain & behaviour research, notably cognitive and clinical neuropsychology/neuropsychiatry. The following issues will be addressed: 1) issues related to the similarities and differences in approaches, conceptualisations, and theoretical background in the various domains of neuropsychology (e.g., cognitive/experimental, clinical, medical, developmental neuropsychology, cognitive neuroscience, basic neuroscience and clinical neuroscience) 2) issues related to causality (e.g., causal or correlative inferences), 3) issues related to the multifactorial nature of cognitive/behavioural functioning (e.g., biological versus environmental determinants, 'nature versus nurture', risk factors and protective factors), 4) issues related to possibilities for execution of neuropsychological research (designs, short overview of statistical approaches).

*Instructional Approach*

Discussion groups, formal presentations, use of research reports and publications as 'discussion material'

*Form of Assessment*  
Essay

**494 AP    Advanced Statistics – 4 Credits**

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Coordinator: Gerard van Breukelen, Methodology and Statistics, Tel. (043) 38 84001, 40 Universiteitssingel East, Room 5.743, E-mail: gerard.vbreukelen@stat.unimaas.nl

Throughout the course, the General Linear Model will serve as a continuous thread. During the first five days, participants will be given an in-depth training in standard statistical methods such as factorial ANOVA for between- and within-subject designs, multivariate ANOVA, discriminant analysis, and multiple regression. Proficiency of two-way factorial ANOVA and multiple regression at the bachelor level of, say Psychology or Health Sciences at Maastricht University, will be presumed and these methods will be briefly reviewed. The following advanced topics will furthermore be covered in these five days: unbalanced factorial designs, covariates, contrast analysis in ANOVA, interaction, nonlinearity and dummy coding in regression, collinearity and residuals checks, data transformation, multivariate ANOVA and discriminant analysis. Five other course days give an introduction to two advanced methods of analysis that become increasingly important to psychology: mixed (multilevel) linear regression for nested designs and longitudinal studies, and structural equations modeling (SEM, sometimes called LISREL). Finally, the important topic of optimal design and sample size is introduced in a one-day training.

*Literature*

For each course day we will use the handout of the lecture plus a suitable book chapter or article. Details of these will be given in time on Blackboard.

Fox (1997) and Kleinbaum (1998) give a fair impression of the content and level of the first course half.

*Instructional Approach*

Each meeting starts with a lecture (2 hours), followed by self-tuition (2 hours) in the morning. Each afternoon some computer exercises will be done, followed by a plenary discussion session. Participants are supposed to prepare themselves for each session by reading the handout or literature. Staff will vary between, but not within weeks, so it will always be clear whom to address for technical questions. General issues can be discussed with the course coordinator.

*Form of Assessment*

Open-book multiple-choice exam will consist of questions resembling the exercises (general theory, some elementary computations, interpretation of computer output).



*References*

- Fox, J. (1997). *Applied regression analysis, linear models, and related methods*. Thousand Oaks (CA): SAGE.
- Kleinbaum, D.G., Kupper, L.L., Muller, K.E., & Nizam, A. (1998). *Applied regression analysis and other multivariable methods*. 3rd ed. Pacific Grove (CA): Brooks/Cole.

**495 AP Research Ethics – 1 Credit**

Coordinators: Eef Theunissen, Neurocognition, Tel. (043) 38 81940, 40 Universiteits-singel East, Room 2.735, E-mail: e.theunissen@psychology.unimaas.nl; Silvia Evers, Tel. (043) 38 84593, 40 Universiteitssingel East, Room 5.732a, E-mail: s.evers@psychology.unimaas.nl

Students will learn to think critically about ethical dilemmas that psychologists encounter when exercising their profession. This workshop will discuss legal and ethical conflicts that are involved in psychological research and clinical practice. Students will be introduced to the ethical and legal rules and boundaries in human research, and to the organisations and institutes supervising the application of these rules.

Psychologists always need to make sure that they carry out their work in an ethical and legally sound way. However, there is often a conflict of interests of the involved parties. In all circumstances, however, it is the psychologist's primary task to secure the patients/participants welfare and to keep risks at to a minimum. Therefore psychologists should know which ethical aspects are of importance and which laws and rules need to be applied and also which institutions supervise on the application of these rules. In addition, these aspects should be taken into consideration when writing and submitting a research proposal to an ethical commission.

The following topics will be discussed:

- Examples of ethical and legal failings
- Necessity of ethical and legal rules
- Different guidelines: declaration of Helsinki, guidelines for Good Clinical Practice, etc.
- Working with participants/patients: rights and duties, confidentiality, data processing and storage, etc.
- Applying ethical and legal rules in e.g., protocol, case report form, informed consent, etc.
- Ethical and legal reviews

*Instructional Approach*

Lectures and discussion groups

*Form of Assessment*  
Written assignment

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**496 AP    Epidemiology – 1 Credit**

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Coordinator: Marcus Huibers, Medical Clinical and Experimental Psychology, Tel. (043) 38 81487, Universiteitssingel 50, Room 1.353, E-mail: m.huibers@dmkep.unimaas.nl

Epidemiology often is referred to as “quantative medicine”. In general, epidemiology deals with methodology issues in the field of health research, including mental health. Students in this workshop will be introduced to the principles of epidemiological research. Topics that are covered in the workshop include: frequency measures, association measures, sources of bias, validity issues, cohort studies, clinical trials, and systematic reviews. The theory of epidemiology will be studied and applied in interactive workshop sessions.

*Instructional Approach*

Format of the workshop is a series of four weekly 2-hour sessions. Starting each session, the lecturer will give a 30-minute presentation of the topics covered in that session, followed by a 30-minute discussion of these topics. The second hour will be spend on group assignments under supervision of the lecturer.

Required reading will consist of several chapters from a clinical epidemiology textbook and additional research papers. In addition to the workshops sessions, students are expected to spend at least 5 hours a week on reading and homework assignments.

*Form of Assessment*

*Group Assignment:*

During the entire workshop, students will work on a research proposal in groups of three or four (depending on the number of students). Students will prepare the proposal during the sessions; the remainder of the work is part of the homework assignments. At the end of the fourth session, each group will give a 10-minute presentation, after which the written proposal is handed in. The lecturer will evaluate the research proposals.

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**497 AP    Imaging – 2 Credits**

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Coordinator: Elia Formisano, Neurocognition, Tel. (043) 38 84040, 40 Universiteits-singel East, Room 4.738, E-mail: e.formisano@psychology.unimaas.nl

This workshop is intended to provide:

- introductory knowledge of the basic principles underlying the most common imaging methods
- appreciation of potentialities and limitations of various neuroimaging methods in studying human brain
- functions and dysfunctions.

The investigation of human brain anatomy and functions using a range of imaging methods represents the most influential development in Psychology in the last years. In this workshop essential facts about all major structural and brain mapping techniques, including Positron Emission Tomography (PET) and SPECT, structural and functional Magnetic Resonance Imaging (fMRI) will be reviewed. The focus will be on the strengths and weaknesses of each of these methods and on the description of relevant applications in the normal and pathological brain.

#### *Instructional Approach*

Lectures, paper discussion, and demonstration visit to the MRI scanner

#### *Form of Assessment*

Open questions

### **498 AP Psychopharmacology – 1 Credit**

Coordinators: Wim Riedel, Neurocognition, Tel. (043) 38 84270, 40 Universiteits-singel East, Room 2.732, E-mail: w.riedel@psychology.unimaas.nl; Brian Leonard

The workshop aims to present Psychopharmacology in a broad sense. The multidisciplinary nature of psychopharmacology encompasses pharmacology, molecular biology, genetics, physiological psychology, experimental, clinical and cognitive neuropsychology and biological psychiatry. The emphasis will be on understanding drug development, drug action, drug research, animal and human pharmacological models of clinical disorders, experimental / clinical trial design and the development of biomarkers, real measures and surrogate measures of drug efficacy.

The course will focus on four major areas in Psychopharmacology: Depression, Anxiety, Psychosis and Cognition. These areas will be illuminated from both the perspectives of basic neuroscience including animal subjects as well as experimental and clinical human psychopharmacology.

#### *Instructional Approach*

Each half-day the programme will consist of a sequence of three elements:

- 1 or 2 Key-note Lectures by internationally renowned speakers
- Presentations by PhD students or junior researchers
- Round table group discussions

Key-note lectures and chairmanships of the roundtable discussions will be given by national and international guest lecturers. The workshop offers plenty of opportunity for the Masters student to interact with PhD students, junior and senior staff and the invited guest speakers who are Key Opinion Leaders in Psychopharmacology.

*Form of Assessment*  
Written assignment

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**499 AP Sexual Disorders (Elective) – 1 Credit**

Coordinator: Jacques van Lankveld, Medical Clinical and Experimental Psychology, E-mail: j.vanlankveld@dep.unimaas.nl

The workshop introduces students to key concepts in current research in sexology, with an emphasis on the cognitive and behavioral mechanisms that play a role in the etiology and maintenance of sexual dysfunction.

*Topics*

- The biopsychosocial model of sexual functioning, including the subjective, physiological, and relational dimensions of sexual functioning
- Gender differences in sexual functioning
- The role of cognitive errors in attribution and expectancy
- The role of attention and affect
- An overview of sexual disorders
- Cognitive-behavioural treatments of sexual disorders

*Instructional Approach*

Two 3-hour meetings, separated by one week.

The first meeting introduces the students to the topics and consists of an introductory lecture and a question and discussion round. Students are given general reading material and tips on further - more specific - material.

As a preparation for the second meeting, each student chooses a topic for a research paper, in which a specific theoretical issue relevant to the area of sexual disorders will be examined, and prepares a discussion paper. The discussion paper presents the central aim of the research paper and one or more specific topics for student presentations and discussion during the second meeting.

The final research paper is due during the week following the second meeting.

*Form of Assessment*  
Discussion paper and research paper

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**591 AP Protocol Writing – 2 Credits**

Coordinator: Herman Schaalma, Experimental Psychology, tel. 38 84329, Universiteitssingel 5, k. 3.001, e-mail: h.schaalma@psychology.unimaas.nl

During this course, students will be familiarized with the different phases of writing scientific protocols and research reports. In advance of their upcoming masters thesis, they will learn to define and crystallize a research question based on its feasibility and scientific relevance; to prepare and structure their arguments and to plan the different parts of the paper; to think about suitable designs and research methods for data acquisition and analysis, and, finally, to learn how to walk through the writing process starting from draft to the final version. This all will be accomplished by competence-based learning in which they have to integrate factual knowledge (from the literature) into skill-based practice (by exercise).

*Instructional Approach*

A combination of introductory lectures, literature meetings and practical sessions

*Form of Assessment*

Written research proposal

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**Electives**

5 credits, to be chosen from:

- Workshop Sexual Disorders (1 credit)
- Core courses, skills trainings, and workshops given by Neuropsychology or Cognitive Neuroimaging (by arrangement)
- Other courses, workshops or trainings given at the graduate level (for masters, PhD, or post-graduate students) at Maastricht University or other academic institutions (by prior approval from the examination committee)
- Individually designed electives (by prior approval from the examination committee)

## 4.5 SCHEDULE ABNORMAL PSYCHOLOGY

YEAR 1	
Weeks	
1 week	Introduction Week
4 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology (4 credits) <b>Core Course:</b> Anxiety Disorders (3 credits) <b>Skills Training:</b> Clinical Skills I (2 credits) - 7 weeks <b>Colloquia</b> (total of 5 credits)
4 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology <b>Core Course:</b> Mood Disorders (3 credits) <b>Skills Training:</b> Clinical Skills I <b>Skills Training:</b> Clinical Skills II (2 credits) - 7 weeks <b>Colloquia</b>
2 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology <b>Workshop:</b> Ecological Psychiatry (1 credit) <b>Workshop:</b> The Application of Cognitive Methods in Psychopathology Research (1 credit) <b>Skills Training:</b> Clinical Skills II <b>Colloquia</b>
4 weeks	<b>Trends-in</b> Cognitive Neuroimaging & <b>Trends-in</b> Abnormal Psychology <b>Core Course:</b> Stress and Trauma (3 credits) <b>Skills Training:</b> Clinical Skills II <b>Colloquia</b>
CHRISTMAS BREAK	
4 weeks	<b>Core Course:</b> Developmental Psychopathology (3 credits) <b>Workshop:</b> Research Theory and Designs (1 credit) <b>Workshop:</b> Advanced Statistics (4 credits) <b>Skills Training:</b> Neuroanatomy (1 credit) <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Somatoform Disorders (3 credits) <b>Workshop:</b> Advanced Statistics <b>Colloquia</b>
4 weeks	<b>Core Course:</b> Psychosis (3 credits) <b>Workshop:</b> Research Ethics (1 credit) <b>Workshop:</b> Advanced Statistics <b>Skills Training:</b> Psychophysiological Skills (1 credit) <b>Colloquia</b>
3 weeks	<b>Core Course:</b> Eating Disorders (2 credits) <b>Workshop:</b> Epidemiology (1 credit) <b>Workshop:</b> Imaging (2 credits) <b>Colloquia</b>

3 weeks	<b>Core Course:</b> Addiction (2 credits) <b>Workshop:</b> Epidemiology <b>Workshop:</b> Psychopharmacology (2 credits) <b>Colloquia</b>
3 weeks	<b>Core Course:</b> Psychopathology and the Law (2 credits) <b>Workshop:</b> Sexual Disorders (1 credit) - Elective <b>Colloquia</b>
<b>YEAR 2</b>	
4 weeks	<b>Core Course:</b> Personality Disorders (3 credits) <b>Workshop:</b> Protocol Writing (2 credits) <b>Skills Training:</b> Clinical Skills III (1 credit)
4 weeks	<b>Core Course:</b> Mental Health and Happiness (3 credits) <b>Workshop:</b> Protocol Writing <b>Skills Training:</b> Clinical Skills IV (1 credit)
32 weeks	<b>Research Internship &amp; Masters Thesis (30 credits)</b> <b>Clinical Internship &amp; Minors Thesis (20 credits)</b>

**401 AP & 402 AP - Trends-in courses:** 11th September- 5th December **2006**

**404 AP - Colloquia:** 15th September 2006 – 15th June **2007**

**481 AP - Research Practicum:** by arrangement, from October 2006 through June 2007

#### Core Courses

**471 AP - Anxiety Disorders:** 12th September- 5th October **2006**

**472 AP - Mood Disorders:** 10th October- 31st October

**473 AP - Stress and Trauma:** 21st November- 14th December

**474 AP - Developmental Psychopathology:** 8th January- 1st February **2007**

**475 AP - Somatoform Disorders:** 5th February- 8th March

**476 AP - Psychosis:** 12th March- 5th April

**477 AP - Eating Disorders:** 16th April- 7th May

**478 AP - Addiction:** 10th May- 31st May

**479 AP - Psychopathology and the Law:** 4th June – 21st June

**571 AP - Personality Disorders:** 3rd September- 27th September

**572 AP - Mental Health and Happiness:** 31st September - 24th October

#### Skills Trainings

**482 AP - Clinical Skills I:** 15th September- 27th October

**483 AP - Clinical Skills II:** 3rd November- 15th December

**484 AP - Neuroanatomy:** 12th January- 2nd February **2007**

**485 AP - Psychophysiological Skills:** 16th March- 5th April

**581 AP** - Clinical Skills III: 7th September- 28th September

**582 AP** - Clinical Skills IV: 4th October- 25th October

### **Workshops**

**491 AP** - Ecological Psychiatry: 1st October- 9th October **2006**

**492 AP** - The Application of Cognitive Methods in  
Psychopathology Research: 13th November- 16th November

**493 AP** - Research Theory and Designs: 9th January – 30th January **2007**

**494 AP** - Advanced Statistics: 10th January – 18th April

**495 AP** - Research Ethics: 13th March- 3rd April

**496 AP** - Epidemiology: 17th April- 8th May

**497 AP** - Imaging: 15th May – 16th May

**498 AP** - Psychopharmacology: 22nd May – 23rd May

**499 AP** - Sexual Disorders: 5th June – 13th June

**591 AP** - Protocol Writing: 4th September- 23rd October



# 5

## Education and Examination Regulations

## 5.1 EDUCATION AND EXAMINATION REGULATIONS – RESEARCH MASTER

### § 1 GENERAL CONDITIONS

Education and Examination Regulations for the 2006-2007 academic year for the Research Master Study Programme in the Faculty of Psychology, as meant in article 7.13 of the Law on Higher Education and Scientific Research (WHW).

#### Article 1.1 Scope of the Regulations

These regulations apply to the education and examinations for the full-time Research Master Study programme “Biopsychology and Psychopathology”, hereinafter referred to as the study programme.

The study programme is offered by the Faculty of Psychology, hereinafter referred to as the Faculty.

The regulations have been established by the Faculty Board, after the advice from the study programme committee and the approval from the Faculty Council had been obtained, and will apply as of 1<sup>st</sup> September 2006 for the 2006-2007 academic year.

#### Article 1.2 Definitions

In these regulations the following is understood by:

- a. The law: the Law for Higher Education and Scientific Research (WHW);
- b. Student: he/she who has been enrolled at the University of Maastricht as of 1<sup>st</sup> September 2006, for the purpose of attending the courses and/or fulfilling the formal requirements of the study programme.
- c. Academic year: the period from 1<sup>st</sup> September of a calendar year through 31<sup>st</sup> August of the following calendar year.
- d. Part: a study unit of the study programme as meant by article 7.3 of the law.
- e. Course: a study unit of the study programme, as meant by the law.
- f. Tutorial Group Meeting: a practical exercise, as meant by article 7.13 paragraph 2, sub t of the law.
- g. Practical Training: a practical exercise, as meant by article 7.13, paragraph 2, sub d of the law.
- h. Test: the test as part of the examination as meant by article 7.10, paragraph 1 of the law.
- i. Examination: all of the formal requirements (a total of 120 European credits) for the Research Master study programme for a given specialisation, including tests, papers, assignments, internships, theses, and other requirements as specified for each course or part of the education.

- k. Credit: a study load of 28 hours, in accordance with article 7.4 of the law. The total study load of the Research Master study programme amounts to 120 European credits.
- k. Board of Examiners: the committee as meant by article 7.12 of the law.
- l. Examiner: the person, appointed by the board of examiners, who is responsible for assessing student performance.
- m. Course Coordinator: an examiner who is responsible for the content of a certain course, workshop, colloquium, skills training, or other part of the study programme.
- n. Board of Appeal: the Board of Appeal for Examinations as meant by article 7.60 of the law.
- o. Rules and Regulations: the rules drawn up by the board of examiners to ensure a smooth running of the assessments, and the regulations governing the way in which the examinee is assessed and how the results of the assessments are arrived at as meant by article 7.12, paragraph 4 of the law.
- p. Faculty Board: the Executive Board of the Faculty of Psychology of the University of Maastricht as meant by article 9.24 of the law.

Other terms are to be understood in accordance with the meaning assigned to them by the law.

### Article 1.3 Purpose of the Study Programme

1. The Research Master programme 'Biopsychology & Psychopathology' is a two-year programme designed for students who want to continue their studies at a graduate school that prepares them for a career in the field of research. Therefore, the purpose of the study programme is the following:
  - academic formation within the context of the Maastricht University educational concept and its distinct profile;
  - provide students with a stimulating scientific environment that will enable them to develop as independent thinkers with a broad curiosity in the various aspects of the multidisciplinary research domain;
  - possibility to broaden one's knowledge in other disciplines;
  - acquisition of specialised knowledge, skills, and insight in the field of biopsychology and psychopathology in general, and in particular in one of the three specialisations, namely, Cognitive Neuroimaging, Neuropsychology, and Abnormal Psychology;
  - preparation for a PhD trajectory or a research career in a non-academic setting.
2. There are sufficient elements in the study programme to enhance the further development of the academic formation of the student, in particular with regard to:
  - thinking and acting independently and scientifically;
  - communicating scientifically in English;

- applying specialised scientific knowledge in a broader context.

#### Article 1.4 Organisation of the Study Programme

The study programme will be offered on a full-time basis.

### § 2 STRUCTURE OF THE STUDY PROGRAMME

#### Article 2.1 Study Load

The two-year study programme has a total study load of 120 European credits (60 credits each year).

#### Article 2.2 Research Master Specialisations

Specialisations in the Research Master Study Programme

- Cognitive Neuroimaging (CN)
- Neuropsychology (NP)
- Abnormal Psychology (AP)

#### Article 2.3 Composition of the curriculum

##### 1. Cognitive Neuroimaging

Trends-in courses: 4 credits

Core Courses:

- Neural Correlates of Selection in Language Processing: 4 credits
- Perception & Attention: 4 credits
- Neuroimaging: 4 credits
- Sensory & Motor Systems: 4 credits
- Advanced fMRI: 3 credits
- Magnetic Brain Stimulation: 3 credits
- Tracking the Time-course of cortical processing using MEG and EEG: 3 credits
- The Auditory System: 3 credits
- Neural Correlates of Consciousness: 3 credits
- Neurocognition of Literacy and Numeracy: 3 credits
- Modeling: 3 credits

Skills Trainings: 11 credits

Each training has a study load of either 1 or 2 credits. The skills trainings provided are reported in the programme's Prospectus.

Workshops: 13 credits

- Advanced Statistics: 4 credits
- Other workshops: 1 or 2 credits each

The workshops provided are reported in the programme's Prospectus.

Colloquia: 5 credits

Research Internship and Masters Thesis: 50 credits

## 2. Neuropsychology

Trends-in courses: 4 credits

Core Courses:

- Brain Damage: 4 credits
- Behavioural Disorders: 4 credits
- Cognitive Aging: 4 credits
- Arousal, Attention, and Psychopharmacology: 4 credits
- Biopsychology: 3 credits
- Brain, Learning and Memory: 3 credits
- Executive Function and Control of Action: 3 credits
- Neuropsychiatric Disorders: 3 credits
- Neuropsychopharmacology: 3 credits
- Cognitive Development: 3 credits
- Brain, Cognition, and Mental Health: 3 credits

Skills Trainings: 9 credits

Each training has a study load of either 1 or 2 credits. The skills trainings provided are reported in the programme's Prospectus.

Workshops: 13 credits

- Advanced Statistics: 4 credits
- Other workshops: 1 or 2 credits each

The workshops provided are reported in the programme's Prospectus.

Colloquia: 5 credits

Electives: 2 credits

The electives provided are reported in the programme's Prospectus.

Research Internship and Masters thesis: 50 credits

(Optional: Research Internship and Masters Thesis: 30 credits and Clinical Internship and Minors Thesis: 20 credits)

### 3. Abnormal Psychology

Trends-in courses: 4 credits

Core Courses:

- Anxiety: 3 credits
- Mood Disorders: 3 credits
- Stress and Trauma: 3 credits
- Developmental Psychopathology: 3 credits
- Somatoform Disorders: 3 credits
- Psychosis: 3 credits
- Eating Disorders: 2 credits
- Addiction: 2 credits
- Psychopathology and the Law: 2 credits
- Personality Disorders: 3 credits
- Mental Health and Happiness: 3 credits

Skills Trainings: 12 credits

Each training has a study load of either 1 or 2 credits. The skills trainings provided are listed in the programme's Prospectus.

Workshops: 14 credits

- Advanced Statistics: 4 credits
- Other workshops: 1 or 2 credits each

The workshops provided are listed in the programme's Prospectus.

Colloquia: 5 credits

Electives: 5 credits

The electives provided are listed in the programme's Prospectus.

Research Internship and Masters Thesis: 30 credits

Clinical Internship and Minors Thesis: 20 credits

#### Article 2.4 The Research Master Examination in Biopsychology and Psychopathology

The examination consists of the following parts:

1. The courses, tutorial group meetings, and practical trainings pertaining to the selected Research Master specialisation;
2. The research proposal, research internship, and the Masters thesis;
3. For AP students (elective for NP students), the clinical internship and the Minors thesis

#### Article 2.5 Language of Instruction

The education and examination in the Research Master study programme are conducted in English.

### § 3 TESTS AND EXAMINATIONS

#### Article 3.1 Compulsory Sequencing of Parts

1. The research internship cannot be started until:
  - At least 60 credits have been attained during the programme;
  - In the above mentioned 60 credits the Advanced Statistics workshop must be included.
2. The clinical internship cannot be started until:
  - At least 60 credits have been attained during the programme;
  - In the above mentioned 60 credits the Advanced Statistics workshop and for students following the Abnormal Psychology specialisation all Clinical Skills (I–IV) trainings must be included; for students following the Neuropsychology specialisation the following skills trainings must have been completed:
    - Neuropsychological Assessments
    - Basic Cognitive Psychological Skills
    - Psychophysiological Skills
    - Neuropsychological and Neuropsychiatric Instruments I and II
3. If a student deviates from the sequencing as described under 1 and, if applicable, 2 without permission from the board of examiners, the result of the part in question can be declared invalid.

#### Article 3.2 Periods and Frequency

1. Assessments take place twice each academic year for each unit, at times determined by the board of examiners: i.e. once during or immediately following the period in which the relevant unit was done and once later in the same academic year.
2. In special cases, the board of examiners can decide that an assessment can take place at a time different from that set in accordance with the previous point.

**Article 3.3 Form of the Assessments**

1. As a rule, assessments are in written form. This includes tests done on a computer. An examiner needs to receive approval by the board of examiners to conduct assessments in a form other than open questions, papers, or portfolios.
2. For written examinations, students will be admitted and can take the test for up to 30 minutes after the test has started. After this, admission will be refused and no extension of the duration of the test will be granted. Students are not allowed to leave the room where the test is taken, until at least 30 minutes after the test has started.
3. A condition for taking course examinations is the compliance with the minimum requirements for participation in the group meetings as laid down in article 4 of section 5.2.
4. The board of examiners has the authority to permit a different form of testing or assessing in special cases.
5. The board of examiners can draw up guidelines for written papers. These guidelines will be included in the programme's Prospectus or in the manual pertaining to the relevant part.
6. Students with a functional disability may request permission from the board of examiners to take the tests in a manner that is, as far as is possible, in keeping with their handicap. The board of examiners can ask for expert advice before arriving at a decision.
7. During written examinations students are not allowed to carry cellular telephones or electronic organisers. The exam will be declared invalid if the student does not conform to this regulation. If a student is discovered to be using a cellular phone or an electronic agenda during the examination, the fraud regulation will be applied.

**Article 3.4 Oral Tests**

1. Oral tests are permitted only in special cases and can be conducted only if the examiner has received approval by the board of examiners.
2. Oral tests are not given to more than one person at the time.
3. An oral test is administered by two examiners, unless the board of examiners has decided otherwise.
4. Administering an oral test is done publicly, unless the board of examiners or the relevant examiner has decided otherwise in a special case, or if the student has raised objections to this.

**Article 3.6 Attendance at Tutorial Group Meetings**

1. The board of examiners lays down the minimum of tutorial group meetings a student is required to attend in the rules and regulations and determines how the actual attendance of each student in the education is registered.



2. Students who do not comply with this minimum attendance requirement, compulsory participation in the tutorial group meetings, but have not missed more than one meeting than is allowed, can still comply with the compulsory attendance requirement by applying for a compensatory assignment from the board of examiners, no later than two weeks after the relevant course has ended. At most, three requests for a compensatory assignment will be granted to a student in each academic year. The board of examiners will inform the student whether permission for a compensatory assignment has been granted no later than four weeks after the course assessment has taken place.

#### **Article 3.7 Proof of Having Passed Courses**

1. Once a student has taken part in a sufficient number of tutorial group meetings and has successfully completed the course assessment and any associated practical training, this will count as proof of having passed the relevant course. The proof will be obtained after an examiner or a non-academic employee, under the supervision and responsibility of the board of examiners, has declared that the requirements for that part of the examination have been complied with. A condition for obtaining proof of having passed a course is that the student has complied with the admission requirements for the relevant part of the examination. The board of examiners can revoke the decision of the examiner if the admission requirements have not been complied with.
2. If the non-academic employee doubts whether the requirements for granting proof of having passed a course have been complied with, he/she puts this before the board of examiners for a final decision.

#### **Article 3.8 Research Internship**

1. The board of examiners determines the criteria that the nature and content of an internship must meet in the internship regulations.
2. The internship regulations are set out in Appendix 1.
3. In order to ensure that the internships proceed smoothly, further guidelines have been drawn up, which can be found in the Manual on Internships. The manual is provided to Research Master students before the end of the first academic year.
4. A student can only follow a research internship once during his/her programme of study. During the internship the student will be supervised by the Faculty.

#### **Article 3.9 Clinical Internship**

1. The clinical internship coordinator determines the criteria that the nature and content of the internship must meet in the internship regulations.
2. The clinical internship regulations are set out in Appendix 2.
3. In order to ensure that the internships proceed smoothly, further guidelines have been drawn up, which can be found in the Manual on Internships. The manual is provided to Research Master students before the end of the first academic year.

4. A student can only follow a clinical internship once during his/her programme of study. During the internship the student will be supervised by the Faculty.
5. AP students may be allowed, but only under exceptional circumstances and with prior approval of the board of examiners, to omit the clinical internship and Minors thesis; in this case, the research internship and Masters thesis would together represent 50 credits.

#### **Article 3.10 Period of Validity**

As a rule, the period of validity of assessments is unlimited.

However, by way of exception, the board of examiners can set a supplementary or alternative assessment for a part a student passed more than six years previously.

#### **Article 3.11 Right of Inspection**

1. The student, on request, has the right to inspect his/her corrected work within a period of two weeks after the results of a written assessment have been made known, at a place and time determined by the course coordinator.
2. The student who has undergone the assessment can go through the questions and tasks of the relevant assessment during this inspection, and, in addition, see the norms on which the assessment had been based.

#### **Article 3.12 Exemptions**

The board of examiners can, on the request of a student, grant exemption from taking a test or other assessment, if the student provides satisfactory written proof that he/she:

1. has already successfully completed a similar course at a university or higher college of higher professional education, which is equivalent in content and level;
2. possesses sufficient knowledge and skills in relation to the relevant test or assessment by way of work or professional experience.

#### **Article 3.13 Determining and Publishing Results**

1. The board of examiners determines the standards for the assessment of each part of the examination.
2. The examiner determines the provisional result of a written assessment within 15 working days after the day on which the assessment took place, and provides the educational office with the data needed for the publication of the result to the student.
3. The examiner determines the result of an oral test immediately after it has been taken and issues the student with a written declaration to this effect. If several students take the same test one after the other, the time for determining the result can be extended by maximally one week.

**Article 3.14 Fraud**

1. If the board of examiners ascertains that, in the course of any form of assessment, a student:
  - made use of illicit aids, texts or notes, or makes or made use of prohibited electronic aids or means of communication;
  - verbally or by means of gestures communicated or tried to communicate with a fellow student without the permission of a supervisor, examiner or member of the board of examiners;
  - copied or tried to copy or gave somebody the opportunity to copy;
  - deliberately misled or tried to mislead the examiner or the supervisor, with respect to the examination;
  - committed any other form of fraud, including plagiarism, then the board of examiners can declare the result of the relevant assessment invalid for the student concerned.
2. The board of examiners can furthermore take the following measures for the cases mentioned under point 1:
  - reprimand,
  - exclusion from (further) participation in one or more parts of the examination of the study programme for a period of at the most one year.
3. In the case of fraud, the board of examiners will apply the same fraud regulation as set out in the Rules and Regulations for the Research Master Examination. This document also specifies what is understood by fraud.

**Article 3.15 Results**

Students who have complied with the requirements for the Research Master examination and who wish to receive the relevant certificate must submit a request to the board of examiners to determine the result of the examination, at least two months prior to the date of graduation. A decision is taken by the board of examiners within four weeks.

**Article 3.16 Examination**

1. The board of examiners determines the result of the Research Master examination as soon as the student has submitted sufficient proof of having passed the assessments. The student, who has met all the requirements for the Research Master examination, will be conferred the Research Master Degree and will receive the diploma belonging to the Research Master examination as proof of this.
2. Before the board of examiners determines the result of the examination, it is entitled to enquire into the student's knowledge in respect of one or more parts of the study programme, should the results of the relevant assessments give reason for this.

**Article 3.17 Degree, Diploma**

1. He/she who has passed the examination successfully will be awarded the degree of “Master of Science”.
2. The diploma issued as a result of having passed the examination successfully will contain:
  - the name of the study programme;
  - the degree that has been awarded;
  - the most recent date on which the study programme has been accredited, or alternatively has undergone the test of being a new study programme.
3. The diploma will be signed by at least two members of the board of examiners.
4. The presentation of the diploma is done in public, unless the board of examiners decides otherwise in special cases.
5. A separate list of marks will be issued with the diploma.
6. The board of examiners can award the diploma with the qualification of ‘with distinction’ in accordance with the Rules and Regulations of the Research Master examination.

**Article 3.18 Right of Appeal**

A student has the right to appeal to the Board of Appeal for Examinations in accordance with article 7.61 of the law. This is clearly stated on the form on which a decision by the examiner and the board of examiners that is open to appeal is communicated to the student. In addition, this form mentions the period within which such an appeal has to be lodged.

**§ 4 ADMISSION****Article 4.1 Admission Requirements for the Research Master Study Programme (art. 7.30b)**

The programme will selectively admit a group of maximally 60 highly qualified students each year. Admission is limited to those with at least a university bachelor degree.

The following documents are needed for application:

- Completed application form
- Application letter which covers the applicant’s background and motivation for research training in the chosen specialisation (maximum 500 words).
- A Curriculum Vitae (maximum 2 pages)
- A certified English transcript of university courses followed and marks received
- Two academic references completed on the provided forms and mailed directly by the referees.

- Non-native English speakers who have not studied at a Dutch University must provide evidence of satisfactory English test results:
  - IELTS: minimum score 6.5
  - TOEFL: minimum score 570 paper-based or 230 computer-based
  - Other recognized proof of English proficiency approved by the board of examiners

A copy of the official test results is required.

Furthermore, all applicants must pay an application processing fee of € 75, and application materials must be received by the deadline published on the website.

#### **Article 4.2 Limitations on Enrolment**

1. At least two months before the mentioned closing date published on the website the Dean proposes the maximum number of students to be admitted to each of the three specialisations of the Research Master to the University Board.
2. Admission of qualified students is based on a two-step selection procedure. In the first round the board of examiners assesses the curriculum vitae, academic record, letter of motivation, academic recommendation letters, and proof of English proficiency, provided by the applicant. Following a favourable decision in the first round, the applicant is invited to the second round, which consists of an individual interview conducted by members of the Board of Admission and a written assignment. Final admittance decisions are made following this.

The Board of Admission is not bound to admit a minimum number of applicants to the Research Master programme or to any of its three specialisations.

#### **Article 4.3 Board of Admission**

1. The Board of Admission of the Research Master programme is delegated the authority to make judgements concerning admission to the programme and to supply proof of such admission. The Board of Admissions consists of:
  - the board of examiners
  - a faculty member for each specialisation

Appointment to the Board of Admission is effected by the Dean according to the advice of the Board of Education.

**§ 5 STUDY ADVICE AND GUIDANCE****Article 5.1 Individual Access to Study Results**

1. The Faculty registers the individual study results of the students in such a way that they can be consulted by the students via Premium.
2. The Faculty furnishes each student with an overview of the personal study results obtained at least once a year (preferably halfway through the second semester).

**Article 5.2 Study Mentoring**

The Faculty organises an introductory programme and assigns a faculty mentor to each student enrolled in the study programme. The mentor guides the learning process and supervises the personal growth of the student. Close monitoring of student performance and progression will help ensure that students complete the Research Master programme on schedule.

**§ 6 PROCEDURAL RULES AND EXCEPTIONS****Article 6.1 Change**

1. Changes in these regulations will be determined by special decision of the Faculty Board on the advice of the study programme commission and with the approval or advice of the Faculty Council.
2. A change in these regulations will not apply to the academic year in which it occurs, unless the interests of the students are not adversely affected by such a change.
3. A change can furthermore not be to the detriment of students by affecting any other decision that had been taken on the basis of the original regulations.

**Article 6.2 Publication**

1. The Faculty Board sees to the proper publication of this regulation, of the Rules and Regulations that have been determined by the board of examiners, and also of any changes in these, by incorporating them in the programme's Prospectus among other things.
2. Interested persons can obtain a copy of the documents referred to in point 1 from the secretariat of the board of examiners.

**Article 6.3 Unforeseen Cases**

The board of examiners decides in cases that have not been foreseen by these regulations.

#### Article 6.4 Hardship Clause

The board of examiners is entitled to deviate from these regulations in individual cases, if a strict adherence will, in its opinion, result in an unfair outcome for the individual, in view of the special circumstances.

#### Article 6.5 Appeal

When the results students have obtained for (parts of) assessments are announced, the board of examiners will notify them of the right to inspection, of the possibility to appeal against the decision with the Board of Appeal for Examinations as meant in article 7.61 of the Law, and of the period of four weeks within which this appeal has to be lodged.

#### Article 6.6 Date of Taking Effect

This regulation takes effect as of 1<sup>st</sup> September 2006 and will be in force for the 2006/2007 academic year.

Thus enacted with the approval of the Council of the Faculty of Psychology in its meeting of 22<sup>nd</sup> June 2006.

No rights can be derived from the education and examination regulations as included here. Copies of the definitive education and examination regulations can be obtained from the secretariat of the board of examiners.

## 5.2 RULES AND REGULATIONS FOR THE RESEARCH MASTER EXAMINATION OF THE BIOPSYCHOLOGY AND PSYCHOPATHOLOGY STUDY PROGRAMME

### Article 1 Board of Examiners

The board of examiners sees to the execution of the regulation for the Research Master examination and its parts, taking into account the law and the education and examination regulations concerning the organisation and scope of the examinations of the Research Master study programme of the Faculty of Psychology. The board of examiners appoints examiners who are competent to assess student performance in a course. In particular cases the board of examiners can annul decisions taken by the examiners and can take its own new decision. This will in particular be the case if a student has not complied with the admission requirements for a part of the examination which he/she has completed.

**Article 2 Composition of the Research Master Examination**

The Research Master examination consists of the following parts:

- a. the courses pertaining to the Research Master specialisation;
- b. the practical trainings, workshops, skills trainings, and colloquia;
- c. the tutorial group meetings pertaining to the courses as meant under a.;
- d. the research proposal;
- e. the research internship and the Masters thesis;
- f. where applicable, the clinical internship and Minors thesis.

**Article 3 Proof of Having Passed a Course****1. Core Courses**

A student can have a course registered as passed if the following requirements have been met:

- A minimum of 85% attendance at the tutorial group meetings. A student who arrives more than 10 minutes after the official starting time of the meeting shall be considered not to have attended. For admission to the course examination, a student must have attended a minimum of 85% of the tutorial group. If a student has not complied with the minimum attendance requirement but has not missed more than one meeting than is allowed, he/she will be admitted provisionally to participate in the course examination. In this case a student can still comply with the minimum attendance requirement by applying for a so-called compensatory assignment;
- A satisfactory assessment for the practical training, if applicable;
- At least sufficient marks for the final course assessment.

**2. Trends-in Courses**

A student can have a trends-in course registered as having been passed if the following requirements have been met:

- Attending a minimum of 85% of the lectures and discussion sessions;
- Timely and satisfactory completion of 85% of the required assessments.

**3. Colloquia**

A student can have the colloquium series registered as having been passed if the following requirements have been met:

- Registered attendance at a minimum of 15 colloquia; if a student has not complied with the attendance obligation but has not missed more than one meeting, he/she will be able to apply for a compensatory assignment;
- Timely and satisfactory completion of the required assessments.

**4. Skills Trainings**

A student can have a skills training registered as having been passed if the following requirements have been met:



- Attendance of 100 % of the skills trainings sessions. If a student has not complied with the attendance obligation but has not missed more than one meeting, he/she will be able to apply for a compensatory assignment;
- Timely and satisfactory completion of the required assignments.

#### 5. Workshops

A student can have a workshop registered as having been passed if the following requirements have been met:

- Attendance of a minimum of 85% of the group meetings; if a student has not complied with the attendance obligation but has not missed more than one meeting, he/she will be able to apply for a compensatory assignment;
- Timely and satisfactory completion of the required assignments.

#### 6. Electives

- a. Electives can be regular courses offered by the UM or another university at the master's level or higher. The content of elective courses should have a link to the RM programme goals. In questionable cases, the board of examiners will decide. Course content should not duplicate or extensively overlap with previously taken courses, as judged by the board of examiners.
- b. Individually-designed electives: Students can design an elective tutorial, research project, or other study, provided that it meets established criteria, as judged by the board of examiners. These criteria include: supervision and assessment by a faculty member; a minimum study load of 28 hours per credit; assessment based on a written paper or examination; content linked to the goals of the RM programme, as described on page 8 of the Prospectus (General). A maximum of 2 of the 5 required electives for AP students can be obtained through an individually-designed course or activity. A maximum of 2 credits can be earned for any single individually-designed elective.
- c. Applications to register for electives (including individually-designed electives) must be submitted 6 weeks in advance of their starting date.
- d. Admission to an elective course can be denied if the student does not have the prerequisite background knowledge (if in doubt, students should consult the course coordinator before applying).
- e. The board of examiners will notify students as soon as possible, at the latest within 2 weeks after the application has been submitted, in case their application for an elective cannot be granted.
- f. By notifying the board of examiners, a student can cancel enrolment in an elective course anytime up to and including the second meeting of a course of at least 4 meetings, or up to and including the first meeting of a shorter course, or during the first week of an individually-designed elective.
- g. For elective courses in which a grade is given, this grade will appear on the transcript but is not included in the grade point average

#### Article 4 Attendance Requirements

1. Where attendance of at least 85% of meetings is mandatory, the following applies:
  - of a total of 18 meetings: at least 15 meetings;
  - of a total of 16 or 17 meetings: at least 14 meetings;
  - of a total of 15 meetings: at least 13 meetings;
  - of a total of 14 meetings: at least 12 meetings;
  - of a total of 13 meetings: at least 11 meetings;
  - of a total of 12 meetings: at least 10 meetings;
  - of a total of 11 or 10 meetings: at least 9 meetings;
  - of a total of 9 meetings: at least 8 meetings
  - of a total of 8 meetings: at least 7 meetings;
  - of a total of 7 meetings: at least 6 meetings;
  - of a total of 6 meetings: at least 5 meetings;
  - In the case of 5 or fewer meetings there is an attendance obligation of 100%.
2. Attendance will be registered on a form, which is transmitted to the education office at the end of the course or training.
3. If a student has not complied with the attendance requirements, the relevant course will not be registered as having been passed.

#### Article 5 Compensatory Assignment

In order to qualify for a compensatory assignment a student must apply for this **within two weeks** after the course is finished by filling in the form **Request Compensatory Assignment Insufficient Attendance** (to be collected at the education desk) and handing it in at the education desk on level 0 (Universiteitssingel 40) during opening hours. The student will receive a receipt, with the deadline for handing in the assignment on it. The assignment must be handed in to the course coordinator within four weeks after it has been given to the student. If this compensatory assignment is considered to be satisfactory the student will be considered to have complied with the attendance requirements and the provisional result of the course examination shall be ratified. If the request for a compensatory assignment has not been submitted in time and/or more than one meeting above what is allowed has been missed, the compensatory assignment will not be given and the provisional result of the course examination will be annulled. The student will then have to comply with the attendance obligation and take the course examination in the following academic year. A student can qualify for a compensatory assignment at the most three times per academic year. After a compensatory assignment has been given three times, this regulation cannot be applied another time in the same academic year;

**Article 6 Requirements for the Research Master Biopsychology and Psychopathology Degree**

The awarding of the Research Master degree and the issuing of the relevant Diploma will take place when proof of having passed all parts of the examination mentioned in article 2 have been obtained:

1. At least sufficient marks for each of the assessments;
2. Proof of satisfactory performance for all practical training sessions that are part of the education;
3. Compliance with the attendance requirement for all courses and practical training sessions;
4. Proof of satisfactory completion of the research proposal;
5. Proof of satisfactory completion of the research internship and Masters thesis;
6. Where applicable, proof of satisfactory completion of the clinical internship and Minors thesis.

**Article 7 With Distinction Degree Completion**

1. Degree completion “with distinction” is attached to the Research Master examination, if each of the following requirements has been met:
  - a. A weighted grade point average score of at least 8.0 for all parts of the exam which are assessed on a ten-point scale. Furthermore, all assessments must be completed on the first attempt. Weighting occurs according the credits (also see Article 2.3) obtained in each course;
  - b. Masters thesis: a score of at least 8.0 or, where applicable, the proportional average of the Masters (70%) and Minors (30%) thesis.

**Article 8 Exemptions**

1. Request for exemption from taking an assessment or undergoing another part of the examination on the strength of what has been determined by law will be submitted to the board of examiners. Written proof must be submitted to support the request.
2. The board of examiners makes a substantiated decision within four weeks after having received the request. The board of examiners is entitled to extend this period of four weeks by a period it determines. The student will be informed of the board of examiners’s decision in writing.
3. No credits will be awarded for the parts of the examination for which exemption has been granted.

**Article 9 Reassessments/Resits**

The following reassessment arrangements apply to students who in the first instance have not passed a part of the Research Master examination.

The relevant reassessments are available only to students who have complied with the attendance requirement.

*1. Core Course Assessments*

The student who failed a course assessment will get one other opportunity to repeat that examination per academic year.

If a student passes the initial assessment he/she cannot repeat the examination. In the case of a reassessment the highest mark counts.

*2. Workshops, Skills Trainings, Trends-in Courses, and Colloquia*

Students who failed a task of a practical training will have to complete a compensatory assignment in the same academic year.

*3. Papers*

There will be one chance per unit to redo papers (including the Masters and Minors thesis) per academic year. This will consist of rewriting the relevant paper.

**Article 10 Hardship Clause**

The board of examiners has the right to deviate in individual cases from what has been determined in the regulation on the request of a student, if a strict application of the rules would lead to an unfair or unreasonable situation. In the assessment of individual cases the board of examiners uses as its starting point the generally applicable legal principle that equal must be treated as equal and unequal must be treated as unequal. The board of examiners uses the so-called principle of unforeseen circumstances as the criterion for acceptability.

**Article 11 Implementation and Date of Taking Effect**

1. The board of examiners makes decisions in all cases that have not been foreseen by the Rules and Regulations.
2. These Rules and Regulations take effect as of 1<sup>st</sup> September 2006.

Thus enacted by the Psychology Board of Examiners at its meeting of 12<sup>th</sup> June 2006.

No rights can be derived from the education and examination regulations as included here. Copies of the definitive education and examination regulations can be obtained from the secretariat of the board of examiners.

### 5.3 APPENDICES WITH THE RULES AND REGULATIONS OF THE RESEARCH MASTER EXAMINATION

Appendix 1: Regulation on Research Proposal, Research Internship, and Masters Thesis

Appendix 2: Regulation on Clinical Internship and Minors Thesis

Appendix 3: Regulation on Fraud

#### APPENDIX 1 REGULATION ON RESEARCH PROPOSAL, INTERNSHIP, AND MASTERS THESIS

##### Article 1 Research proposal

1. A research proposal is an independently written proposal concerning research that the student intends to conduct during his/her internship.
2. The research proposal consists of the following parts:
  - a brief theoretical background of the research;
  - the question posed by the research;
  - a description of the research plan;
  - a description of the research methods that will be applied;
  - a description of the techniques that will be used for processing and analysing the data;
  - a timetable.
3. Guideline for the length of the research proposal is 4 to 7 pages (A4 format).
4. The assessment is done by two assessors. They are: a. two staff members of the Faculty if the internship is done internally (supervisor from the Faculty and a second assessor), or b. the external supervisor and the supervisor from the Faculty in case the internship is done outside the Faculty.
5. An approved research proposal is necessary before commencing the research internship. If the research proposal is judged to be unsatisfactory, the regulation about reassessments for Papers, article 8, point 3, Rules and Regulations for the Research Master examination of the Biopsychology and Psychopathology study programme, applies.

##### Article 2 Research internship

1. A student is required to do a research internship and Masters thesis at the conclusion of his/her study programme. If applicable, the clinical internship and Minors thesis could be done before, after, or together with the research internship.
2. The student notifies the educational office about the internship at least one month before the start of the internship by means of a research internship notification form. The educational office checks whether the student has complied with the requirements in article 3.1, point 1 of the examination regulations.

3. An internship agreement is drawn up for each internship, in which a number of arrangements are set out between the institution where the internship takes place, the supervisor from the Faculty and the student. A copy of this agreement is sent to the educational office at least one month before the internship starts.
4. The student will be supervised during the internship by a supervisor from the Faculty and a supervisor from the institution where the internship takes place (internship supervisor). The task of the supervisor from the Faculty and/or the internship supervisor consists in advising the student in matters of content with respect to the internship activities and the reporting of these in a Masters thesis (see Appendix 1: Article 3, Regulation Masters thesis). In addition, the supervisor from the Faculty is the contact person with the institution where the internship takes place.
5. After the practical part of the research has been finished, an evaluative discussion takes place between the internship supervisor, the supervisor from the Faculty and the student. The internship is registered as having been completed successfully by the internship supervisor or the supervisor from the Faculty on an assessment form, which is sent to the educational office.

#### Article 3 Masters thesis

1. A Masters thesis is an independently written report of the research that has been conducted during the research internship.
2. The Masters thesis is in principle an individually written piece of work.
3. The Masters thesis is assessed on the following four aspects: the research question, scientific content, argumentation and form. All four aspects must be assessed with sufficient marks.
4. The student must submit four copies of the Masters thesis to the educational office. Two copies, together with the individual assessment form, are sent on to the internship supervisor / supervisor from the Faculty and to the supervisor from the Faculty / second assessor. The assessment form, filled in and signed by both supervisors, is sent back to the educational office together with a written explanation within 20 working days. The educational office sends one copy of the approved Masters thesis to the internship coordinator for filing. The fourth copy is put into the University Library unless the institution where the Internship took place has objections to this.
5. If the Masters thesis is awarded insufficient marks, the Regulation for Reassessments for Papers, article 8, point 3 of the Rules and Regulations for the Research Master examination of the Biopsychology and Psychopathology study programme apply.

#### Article 4 Requirement for obtaining credit

In order to obtain credit (50 credits for students not doing a clinical internship/Minors thesis; 30 credits for students also doing a clinical internship/Minors thesis) for this part of the Research Master examination, the student must have satis-

factorily completed the research proposal, the research internship, and the Masters thesis.

## APPENDIX 2 REGULATION ON CLINICAL INTERNSHIP AND MINORS THESIS

### Article 1 Clinical internship

1. Students following the Abnormal Psychology specialisation are required to (and students following the Neuropsychology specialisation may choose to) complete a clinical internship of 13 weeks or the equivalent (520 hours).
2. The student notifies the educational office about the internship at least one month before the start of the internship by means of a clinical internship notification form. The educational office checks whether the student has complied with the requirements in article 3.1, point 2 of the examination regulations.
3. An internship agreement is drawn up for each internship in which a number of arrangements are set out between the institution where the internship takes place, the supervisor from the Faculty and the student.  
A copy of this agreement is sent to the educational office at least one month before the internship starts.
4. The student will be supervised during the internship by a supervisor from the Faculty and a supervisor from the institution where the internship takes place (internship supervisor). The task of the supervisor from the Faculty and/or the internship supervisor consists in advising the student in matters of content with respect to the internship activities. The supervisor from the Faculty also advises the student concerning the conduct and reporting of research for the Minors thesis (see Appendix 2, Article 2, Minors thesis), and is the contact person with the institution where the internship takes place.
5. After the practical part of the clinical internship has been completed, an evaluative discussion takes place between the internship supervisor, the supervisor from the Faculty and the student. The internship is registered as having been completed successfully by the internship supervisor or the supervisor from the Faculty on an assessment form which is sent to the educational office.
6. AP students may be allowed, but only under exceptional circumstances and with prior approval of the board of examiners, to omit the clinical internship and Minors thesis; in this case, the research internship and Masters thesis would together represent 50 credits.

### Article 2 Minors thesis

1. All students who elect or are required to follow a clinical internship are required to write a Minors thesis.
2. The Minors thesis is in principle an individually drawn up piece of work.
3. The Minors thesis is an independently written research report based on a clinical topic.

4. The topic of this thesis must be relevant to the clinical setting where the internship is conducted and must be approved by the staff member of the Faculty who is clinical internship coordinator within the student's specialisation.
5. The Minors thesis is assessed on the following four aspects: the clinical research question, scientific content, argumentation and form. All four aspects must be assessed with sufficient marks.
6. The student must submit two copies of the Minors thesis to the educational office. One copy, together with the individual assessment form, is sent on to supervisor from the Faculty. The assessment form, filled in and signed by the supervisor, is sent back to the educational office together with a written explanation within 20 working days. The educational office sends one copy of the approved Minors thesis to the internship coordinator for filing.
7. If the Minors thesis is awarded insufficient marks, the Regulation for Reassessments for Papers, article 8, point 3 of the Rules and Regulations for the Research Master examination of the Biopsychology and Psychopathology study programme applies.

### Article 3 Requirement for obtaining credit

In order to obtain credit (20 credits) for this part of the Research Master examination, the student must have satisfactorily completed both the clinical internship and the Minors thesis.

## APPENDIX 3 REGULATION ON FRAUD

The board of examiners has laid down the following regulation on examination fraud by way of further elaboration of article 4.13, point 1 sub e of the education and examination regulation (OER), in its meeting of 14<sup>th</sup> June 1995. This regulation is part of the Rules and Regulations.

### Article 1

Fraud as referred to in article 4.13 of the Education and Examination Regulations is understood to mean:

- a. acting or failing to act on the part of an examinee in a way that makes it wholly or partly impossible to form a fair judgment about the knowledge, insight and skills of the examinee.
- b. acting or failing to act on the part of an examinee in a way that makes it wholly or partly impossible to form a fair judgment about the knowledge, insight and skills of a co-examinee.



### Article 2

Fraud as meant in article 4.13 of the Education and Examination Regulations also includes: an attempt at fraud.

### Article 3

Acting or failing to act as meant in article 1 of this regulation is understood to mean:

- a. In respect to the writing of papers:
  - literal or paraphrased copying of passages from other papers or oral texts in such a way that the impression is given that it is one's own work;
  - literal or paraphrased copying of passages from scientific articles or books in such a way that the impression is given that it is one's own work.
  - literal or paraphrased copying of passages from other electronic papers in such a way that the impression is given that it is one's own work;
  - literal or paraphrased copying of passages from sources on the Internet in such a way that the impression is given that it is one's own work.
- b. In respect to taking tests, comparable proofs of ability, and examinations:
  - disposing over the usage of texts other than those of which the use is expressly permitted, on or in the vicinity of the table where the examinee sits or another place accessible to the examinee, during the taking of the test;
  - exchanging information with a co-examinee, where and in whatever way, during the taking of the test.

### Article 4

If in the opinion of the examiner a (possible) case of fraud has taken place, the examiner as a rule takes the following action:

- a. If the (possible) fraud has been ascertained during the taking of the test:
  - the examiner notifies the examinee of the ascertained (possible) fraud;
  - any text that the examinee may have unjustly had at his/her disposal for usage is confiscated;
  - the examinee is given the opportunity to complete the test, unless the examiner decides otherwise;
  - the examiner will bar the student from further participation in the test, if the examinee refuses to hand over the text that was possibly unjustly kept at hand in order to be used;
  - a text that has been confiscated is normally not returned to the examinee after the test is finished, unless the examiner decides otherwise;
  - the examiner documents the relevant facts connected with the suspected fraud in writing and sends this statement without delay to the Psychology board of examiners, together with any texts that had been confiscated;
- b. if the (possible) fraud has been ascertained during or after the correction of a test or examination:

- the examiner notifies the board of examiners in writing without delay about the (possible) fraud, providing the relevant papers and documents;
  - the board of examiners notifies the examinee about the ascertained (possible) fraud.
- c. if the (possible) fraud is ascertained during or after the correction of written
- papers that are part of a test or that count as concluding part of a study unit;
  - the examiner notifies the board of examiners in writing without delay of the (possible) fraud, adding the relevant papers and documents;
  - the Psychology board of examiners notifies the examinee about the ascertained (possible) fraud.

#### Article 5

The board of examiners deals with cases of possible fraud in the following manner:

- a. the person who is suspected of fraud is called for a discussion; the board of examiners will be represented by the chairperson and the secretary or their representatives, and if possible by one other member of the committee;
- b. the board of examiners decides, also on the ground of the outcome of the discussion as meant under point a., whether fraud has taken place;
- c. the relevant test or paper will be declared invalid in each case that fraud as meant by article 1, point a. has been ascertained;
- d. the board of examiners imposes a sanction, taking into account the nature and severity of the fraud committed in accordance with what has been said in article 3.14 of the Education and Examination Regulations (OER), in each case that fraud as meant by article 1, point a has been ascertained;
- e. the student concerned will be notified about the decision of the board of examiners as soon as possible;
- f. an entry will be made in the student's file when a test or paper has been declared invalid and a sanction has been imposed;
- g. texts that have been confiscated will, on request, be returned by the board of examiners to the student concerned, if it decides that they do not need to remain available any longer in connection with the (further) treatment of the case;
- h. the board of examiners can decide to reveal its decision publicly but without revealing the identity of the student concerned, with all the facts and circumstances on which the decision was based.

#### Article 6

A student can appeal to the Board of Appeal for Examinations against decisions taken by the board of examiners concerning fraud, within four weeks after the decision has been publicized.

# 6 Educational organisation and administration

## 6.1 STUDENT SERVICES (SSC)

Student Services is responsible for the preparation and execution of the policy of Universiteit Maastricht in the area of general student provisions. Student Services sees to the maintaining of the relationship with new students and alumni, an agreeable living environment for students and student associations, and guidance unrelated to the studies.

The SSC publicizes current information in the university magazine *Observant* and provides extensive information on the Internet.

Students are able to ask questions via the electronic service centre.

The areas of health, accommodation, transport, financial matters, sports, safety, education, culture, the city of Maastricht and internationalisation are dealt with in a wider context on a joint website of the Municipality of Maastricht (GM), the University of Professional Education Zuyd (HSZuyd), the Midwives' School (VrS), the Maastricht Student Advisory Board (MSR) and the University of Maastricht (UM).

Visiting Address: Bonnefantenstraat 2

Postal Address: P.O. Box 616, 6200 MD Maastricht

SSC Website: [www.ssc.unimaas.nl](http://www.ssc.unimaas.nl)

Electronic Service Centre: <http://esc-ssc.unimaas.nl>

Website GM, HSZuyd, VrS, MSR and UM: [www.studentenstad.Maastricht.nl](http://www.studentenstad.Maastricht.nl)

### Information Desk SSC

The information desk in the UM Visitors' Centre, Bonnefantenstraat 2, is the first point of contact for (new) students. Students can go to the information desk for the following services:

- Enrolments,
- Re-enrolments,
- Changes of Address,
- Payment in Instalments of the University Fees,
- Writing Oneself out of a Programme of Study,
- Reimbursement of University Fees,
- Proof of Payment / Enrolment,
- Collecting the first issue of one's UM Card,
- Purchase of UM Sports Card.

Students also can book appointments with the academic counsellors and the general counsellors at the information desk.

Information Desk, Bonnefantenstraat 2

Visiting hours: Monday to Friday 10.00 –18.00 hours; Saturday 10.00 -16.00 hours.

Contact by telephone: Monday to Friday 9.00 – 18.00 hours.

Call center (for making appointments, for queries about enrolment, for foreign diploma holders): +31 43 388 5388

E-mail for address changes: [Buro.Inschrijvingen@ssc.unimaas.nl](mailto:Buro.Inschrijvingen@ssc.unimaas.nl)

Electronic Service centre: <http://esc-ssc.unimaas.nl>

The information desk is closed during the week of Carnival, the Easter week and over Christmas and New Year.

Changes will be announced in *Observant*, on the Internet and by e-mail.

#### **International Service Desk (ISD)**

The ISD offers foreign students help with obtaining a visa, employment permit or residence permit/MVV, taking out a medical insurance, opening a bank account and provides information about the availability of bursaries for incoming students.

A student who is enrolled can obtain information from the ISD about bursaries (Socrates / Erasmus, Huygens, cultural treaties, Leonardo, DELTA, UM scholarships, MUNDO scholarships, NFP scholarships) and the ISEP Programme (studying in the USA). The ISD helps with the extension of the residence permit.

Young scientists and student associations can obtain information about SWOL (University Fund) scholarship possibilities.

Bonnefantenstraat 2, Phone: +31 43 388 5284; E-mail: [isd@ssc.unimaas.nl](mailto:isd@ssc.unimaas.nl)

#### **Student Guidance Personnel**

The Universiteit Maastricht has different categories of student guidance personnel: Faculty Student Advisors; Academic Counsellors; General Counsellors and Career Counsellors.

##### *Faculty Student Advisors*

The Faculty student advisor is the person students can turn to for questions about the area of study.

##### *Academic Counsellors*

The academic counsellors provide support, advice and guidance in matters pertaining to the legal status of a student. Students can also go to the academic counsellor for personal matters. They can help you to make your problems clear and sustain you with finding solutions. Together you will find out what is necessary for making your decisions step-by-step and in good order. Conversations with an academic counsellor are treated as confidential.

You can also go to an academic counsellor for matters not concerning the study. They have a lot of information resources and contacts in many areas.

Academic counsellors deal with the following:

- Breaking one's study or changing to another study;
- Study delay;
- Stopping one's study;
- Financial problems;
- Illness, pregnancy, special family circumstances;
- Studying with a physical or other limitation.

The academic counsellors can be contacted as follows (always mention ID Number):

Telephonic consultation: Monday to Thursday 13.30 – 16.00 hours +31 43 388 5273

Walk-in consultation: Tuesday and Thursday 16.00 – 16.00 hours Bonnefantenstraat 2

Personal appointment: via telephone +31 43 388 5388

An appointment can also be made at the information desk, Bonnefantenstraat 2.

E-mail: [studentendecanaat@ssc.unimaas.nl](mailto:studentendecanaat@ssc.unimaas.nl)

#### *General Counsellors*

General counsellors offer help for personal (psychological) problems; e.g. (study)stress, anxieties, eating disorders, depression, complaints about (physical) tension, taking decisions and making choices, problems with relationships (at home or elsewhere), problems with study or internship or other psychological problems which are broadly connected to 'being a student'.

The help consists of a series of individual conversations or a treatment in groups. The first conversation is a general orientation and is meant to clarify the problem. The counsellor will go into the problem or complaint in a limited number of conversations. Referrals are sometimes necessary but this is always done in consultation with the student.

The counsellors also organise group or training programmes as for assertiveness, fear of failure or coping with grief.

An appointment can be made by telephone: +31 43 388 5388 or at the information desk, Bonnefantenstraat 2.

#### **Studying with a limitation**

Universiteit Maastricht wants to make it as easy as possible for disabled students to successfully complete their studies without too much delay. To prevent any obstacles from occurring, UM offers support in the form of regulations, facilities, and individual counselling.

By disability UM means all disorders that are of a permanent character and that often lead to study delay. Amongst these are (visible) motor, sensory or psychological disor-

ders, but also non-visible disorders, such as dyslexia, RSI, chronic fatigue, depression, chronic illness, et cetera.

Next to the structural facilities, a coherent system of student counselling is offered. Student deans, student advisors, career counsellors, and student psychologists work together to give the best possible service.

(New) students, counsellors, teachers, parents and other interested can address Service desk Disability Management (DM) for:

- information (about laws, (UM) regulations and external organizations);
- advice;
- support (as for obtaining provisions);
- questions about studying with a limitation;
- complaints and problems.

Students who (want to) study at UM and are in need of specific facilities, are advised to make an appointment with the Service desk Disability Management at an early stage, thereby enabling the UM to organise optimal study surroundings in due time.

Contact can be made in person, telephonically or digitally. There is a brochure in Dutch (Volwaardig Studeren), which can be obtained at the Service Desk DM. More information you can find on the website: [www.unimaas.nl/steunpunt\\_dm](http://www.unimaas.nl/steunpunt_dm)

Opening hours Service desk DM: Tuesday to Friday 9.30 – 12.30 hours

Phone: +31 43 388 5272

Visiting Address: Bonnefantenstraat 2, Room B0.07

Appointments (not necessary, however practical) through telephone number +31 43 388 5388

E-mail: [handicap@ssc.unimaas.nl](mailto:handicap@ssc.unimaas.nl) (if applicable, mention your ID number)

### Student Careers Services

Students can ask for career or study advice in different ways and at different times from career advisors of the Student Careers Advisory Services (LCS) or make use of the varied documentation of the (Study and Careers Information Office (ISL).

#### *Student Careers Advisory Services (LCS)*

The career advisors of the LCS offer professional support when students have questions or doubts about

- Choice of study programme (did I choose the right programme of study?),
- The development of the way one's study is going (what internship or study route is best for me?),
- Orientation for a Master's course or for the labour market (do I want to look for a job before continuing with a Master's, what job or position and what kind of organisation suits me best, how must I go about applying for a job?)

Students can appeal to career advisors at all stages of their study. They can help with taking important decisions. Guidance is offered individually or in groups, for instance

in workshops on career development, training in how to apply for a job and in courses about choosing a study programme.

Appointments can be made by telephone: +31 43 388 5318.

Visiting Address: Bonnefantenstraat 2

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone: +31 43 388 5318

Website: [www.loopbaancentrum.unimaas.nl](http://www.loopbaancentrum.unimaas.nl)

### *Study and Careers Information Office (ISL)*

The ISL has information about the following:

- Bachelor's and master's programmes in The Netherlands, post-academic and post-professional education and courses;
- Study programmes and internships outside The Netherlands, summer courses, language courses, scholarships and entrance tests;
- National and international labour market, career planning, vacancies, psychological tests and applying for jobs.

The documentation consists of written materials, digital data banks and listings of websites. By consulting the electronic catalogue (via website LCS) one can find what information is available (see website LCS). Graduates can collect yearbooks at ISL.

Visiting Address: Bonnefantenstraat 2, Room E 1.13

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone: +31 43 388 5318

Website: [www.loopbaancentrum.unimaas.nl](http://www.loopbaancentrum.unimaas.nl)

Visiting hours: Monday to Thursday 11.00 – 17.30 hours and Friday 10.00 – 12.00 hours

Different visiting hours and holidays will be publicized in the *Observant* and on the website.

### *Accommodation Services*

When looking for accommodation you can contact [www.kamerburo.net](http://www.kamerburo.net). The Accommodation Services is a non-commercial agency which mediates in finding accommodation and which is linked to Student Services. Writing oneself in with Accommodation Services provides assurance for finding a new room or changing rooms should problems with accommodation or rent arise. Accommodation Services mediates both for private rooms and rooms/ studios belonging to the three housing associations in Maastricht. Registration fee is € 30.

Visiting Address: Information Desk Visitors' Centre, Bonnefantenstraat 2

Opening hours: Monday to Friday 10.00-18.00 hours; Saturday: 10.00-16.00 hours.

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone: +31 43 388 5300

E-mail: [kamerburo@ssc.unimaas.nl](mailto:kamerburo@ssc.unimaas.nl)



Website: [www.kamerburo.net](http://www.kamerburo.net)

Registration is only possible by the website. You can also look for suitable accommodation on the website.

### Studium Generale

The Studium Generale organises a varied programme consisting of:

- lectures, debates, interviews;
- the Cultural Café with cabaret, theatre, open podium
- Global Culture Nights with world music and dance;
- courses.

The lectures are about a broad range of themes, such as psychology, economy, philosophy, arts and culture, current social and political questions. The lectures are often grouped around a theme. It is a pleasant way to get informed. It is about 90 minutes quietness in a world of restless zapping.

Cultural Café will guarantee you a nice evening for a little money (important: make reservations on time) Cabaret, theatre, preliminaries for comedy festivals, the student song festival, the monologue contest, it is all on stage. You can perform yourself too, in the song festival the monologue contest or the famous Open Podium. Do what you want in just fifteen minutes: music, cabaret, theatre, stand-up, mime, rap and dance. Contact the Studium Generale for more information.

The Global Culture Nights have surprising programmes with music from all over the world, performed in a special, attractive atmosphere.

The SG courses consist of 4 to 6 meetings. With a small group you can study how to research source material, or bring alive those resources. You discuss about Plato, the Enlightenment or Renaissance. Or you study the heart functions and failures.

Information about the activities can be found on the SG-website and in the SG-Agenda, which is handed out at all faculties four times a year, in the local newspaper and cultural magazines and in *Observant*. The SG courses are published in a brochure two times a year. It is available in all UM locations. You can also apply for the E-mail Service via [mail@sg.unimaas.nl](mailto:mail@sg.unimaas.nl)

Visiting Address: Bonnefantenstraat 2

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone SG: +31 43 388 5307

Telephone SG courses: +31 43 388 3550

Fax: +31 43 388 5310

E-mail: [mail@sg.unimaas.nl](mailto:mail@sg.unimaas.nl)

Website: [www.sg.unimaas.nl](http://www.sg.unimaas.nl)

### Science Shop

The Science Shop mediates in finding students who want to do research for non-commercial social organisations, like patient organisations, environmental movements,

public services, interest groups, etc. Students conduct the research as part of their curriculum as degree or course thesis and in addition to their credits, receive a full expense allowance and expert guidance.

Visiting Address: Bonnefantenstraat 2

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone: +31 43 388 5292

E-mail: [wetenschapswinkel@ssc.unimaas.nl](mailto:wetenschapswinkel@ssc.unimaas.nl)

Local Website: [www.ssc.unimaas.nl/wetenschapswinkel](http://www.ssc.unimaas.nl/wetenschapswinkel)

National Website: [www.wetenschapswinkel.nl](http://www.wetenschapswinkel.nl)

### UM Sports Services

UM Sports Services organises trainings, lectures, contests, and competitions in the field of sports and moving recreationally for the benefit of students and staff members. A sports card allows you to use the sporting facilities, some of those with an additional payment or at reduced price (courses and fitness). As of academic year 2006-2007, students can get a semester sports card (September-December and January-July).

Students and those who have had a sports card can buy a sports card via Internet (€ 2.50 discount). All others can get a sports card at the sports desks:

Information desk Visitors' Centre, Bonnefantenstraat 2;

Randwijck Sports Hall, 180 Sorbonnelaan.

Remember to bring your ID Number. Payment can only be made by pin pass. For the complete sports programme and more information, look at the website:

[www.ssc.unimaas.nl/UM Sport](http://www.ssc.unimaas.nl/UM Sport)

Telephone Secretariat UM Sports

Services: +31 43 388 5311

Telephone Randwijck Sports Hall: +31 43 361 3933 (from 12.00 hours)

E-mail: [um-sport@ssc.unimaas.nl](mailto:um-sport@ssc.unimaas.nl)

Website: [www.ssc.unimaas.nl/sport](http://www.ssc.unimaas.nl/sport)

Maastricht has many Students Sports Clubs, united under the umbrella of: Maastricht University Student Sports Trust (MUSST), see [www.musst.unimaas.nl](http://www.musst.unimaas.nl)

### SG courses (former HOVO Universiteit Maastricht)

Studium Generale organises courses, excursions and workshops for everybody outside and inside the university, who wants to be informed about research and education at the UM. In general, the courses (4-6 weeks) are given by UM teachers. There are no assessments and courses do not lead to a diploma or credits. More information on [www.sg.maastricht.nl/hovo](http://www.sg.maastricht.nl/hovo) and in the SG- Agenda.

Postal Address: P.O. Box 616, 6200 MD Maastricht

Telephone: +31 43 388 3550

E-mail: [mail@sg.unimaas.nl](mailto:mail@sg.unimaas.nl)  
Website: [www.sg.unimaas.nl/hovo](http://www.sg.unimaas.nl/hovo)

### Alumni Office

The Universiteit Maastricht attaches great value to the link with its alumni. An UM alumnus is one of the best ambassadors of Universiteit Maastricht, all over the world. The UM Alumni Office is the general information and contact office for questions, problems, ideas et cetera of all UM-alumni. It gives support to Alumni Circles in The Netherlands and abroad, provides the digital alumni network (Alumninet), is developing special services for alumni like discount on cultural activities, hotel accommodation or the services of the UM language school. Alumni receive the magazine ContinuUM for free (two times a year) and the electronic newsletter ALUMni News (at least four times a year). Via Alumninet they can get information about career planning, job vacancies, master and postgraduate courses.

Alumni Office, general coordinator: Ine Kuppen,  
Telephone: +31 43 388 5231  
E-mail: [alumni@ssc.unimaas.nl](mailto:alumni@ssc.unimaas.nl)  
AlumniNet: [www.alumni.unimaas.nl](http://www.alumni.unimaas.nl)

### Tafelstraat 13

The Students Centre Tafelstraat 13 is an open house, a meeting place, a centre, sometimes dynamic, sometimes a place of silence. All students are welcome: bachelor's, master's, PhD and exchange students. Students of all years and faculties, with different social and cultural backgrounds, meet each other in an international atmosphere, so specific for the Universiteit Maastricht. Some students visit Tafelstraat 13 weekly. They are involved in the organization. Others come for a special programme. Tafelstraat 13 offers an extensive range of activities for and with students in the area of life's ideology, society and (multi)culture. The door is also open for those who need a personal talk. Students, members of the 'Student's Place' and pastors guarantee a warm welcome.

To give an idea of what is offered: meditation, cooking course, philosophy, film, bible study, city trips, hiking, weekends in a cloister. There are community meals every Thursday and an International Dinner & Cultural Night, every month. A Vesper will be held every Tuesday in the crypt of the Basilica of Onze Lieve Vrouwe. Together with the general counsellors, workshops are organised. You can receive the email newsletter and the monthly letter 'The Thirteenth'. Subscription is free of charge for students. You can also look at the website: [www.tafelstraat13.nl](http://www.tafelstraat13.nl)

Visiting and postal address: Ecumenical university chaplaincy, Tafelstraat 13, 6211 JD Maastricht

Telephone: +31 43 321 5651  
E-mail: [info@tafelstraat13.nl](mailto:info@tafelstraat13.nl)

Website: [www.tafelstraat13.nl](http://www.tafelstraat13.nl)

## 6.2 SPS (Section for Psychology Students) AND THE NIP

### 6.2.1 NIP and SPS

The Section of Psychology Students (SPS) is part of the Netherlands Institute for Psychologists (NIP) with 1400 student members. The NIP is the professional association of psychologists and has well over 12.000 members. The NIP offers service in the area of developments within the psychology programs of study, post-graduate programs, refresher courses, job opportunities, advice on setting oneself up independently, protection of one's title and professional ethics. For students this is an important organization to help after graduation at the labour market. In the Netherlands 17.000 students follow a psychology program. Many of them you will meet as competitor while applying for a job.

The NIP student membership offers the following advantages: Monthly posting of the magazine 'De Psycholoog' with scientific articles, vacancies and announcements of lectures and congresses, opportunities to make contact with psychologists from various disciplines, reduction on entrance fees for lectures and conferences and participation in the activities of the NIP sectors, sections and working groups. For € 4,75 per month you have access to these services. See [www.psynip.nl](http://www.psynip.nl) for further information.

### 6.2.2 SPS Platform Maastricht

The SPS has a national governing body on which members from the various universities have a seat. In addition there is a local SPS platform in each university town. The platforms organize post-graduate programs, information days, workshops, excursions, lectures and visits to institutions where psychologists work.

The Section of Psychology Students (SPS) consists of a platform of a group of psychology students and has been active for a few years now. The aim of the SPS is to inform UM students about the professional practice of the psychologist.

The SPS gives one an idea of varied areas of work. It hopes to help students in making a well-considered choice when deciding on a degree program, electives and career. It also tries to give a picture of where a student can end up after his or her studies and what jobs are like.

There are contacts with senior advisors who work at the Netherlands Institute of Psychologists (NIP). One can call upon these senior advisors for a personal talk about one's career. It is possible to make contact with sections and working groups of the NIP via the SPS. By becoming active in a section a student can take a look in the 'kitchen of psychology'. Contacts can also be made with a view to finding an agreea-

ble place for one's internship. Participation in (inter)national congresses and workshops offers the opportunity to broaden one's knowledge. For all your questions, comments or suggestions, or if you want to become a member or want to be active in the SPS platform, send an e-mail to: [sps\\_maastricht@hotmail.com](mailto:sps_maastricht@hotmail.com).

### **6.3 InterUM BV**

The faculty increasingly makes use of the services of InterUM BV (internal placement bureau of the Universiteit Maastricht), especially with regard to placement of student tutors, student assistants, and invigilators. Information can be obtained from: InterUM BV, P.O. Box 616, 6200 MD Maastricht.  
Visiting Address: 22A Tongersestraat  
Telephone: (043) 38 82688  
Fax: (043) 3263579  
E-mail: [bureau@interum.umholding.nl](mailto:bureau@interum.umholding.nl)  
Also for the Job Centre: [www.umholding.nl/interum](http://www.umholding.nl/interum)

### **6.4 EDUCATIONAL SUPPORT: THE EDUCATION OFFICE**

#### **6.4.1 General**

The Education Office of the Faculty of Psychology provides an important contribution to the logistical planning, administration and organisation of the study programme. The Education Office also functions as the central point of information for all matters related to the study programme and sees to the administration of all matters pertaining to the examinations and the study in general. Students can contact the Education Desk of the Education Office with queries about the study programme and examinations and can collect the course manuals and timetables there. The Education Desk is located at level 0, Universiteitssingel 40 East, Room 0.636a.

**Staff Members Education Office and Internationalisation Office**

Position	Staff Member	Room	Telephone
Head Education Office	Irma Kokx	5.777	38 81883
Secretariat	Isabel Hikisch	5.761	38 81911
Logistics & Planning	Harrie Timmers	5.767	38 84013
	Yvonne Lenoir	5.767	38 84123
Examination Administration	Marian Pieters	5.765	38 81939
	Ellen Blaauw	5.765	38 84002
Coordinator examinations	Ellen Blaauw	5.765	38 84002
Staff Member for Internships	Myrtle Brongers	5.773	38 84058
Coordinator Bureau Internationalisation	Loes Mallee	5.753	38 81920
Staff Member Bureau Internationalisation	Anke van der Stoel	5.749	38 84031
Staff Member Training and Evaluation	Wladimir van Mansum	5.759	38 84541
Coordinator Eleum/Blackboard	Enny Beerden	5.759	38 84009
Staff Member Public Relations	Willie Schipper	5.771	38 81871
Staff Member Public Relations	Mandy Rouwet	5.771	38 82209
Staff Member Software Development	Tamerius Cohen	5.747	38 84543

**Announcements about educational matters to students**

Changes of and additions to timetables, study programmes and regulations can always occur during the academic year. In order to announce these changes and additions as clearly and quickly as possible to all concerned, the faculty has a section in the University Magazine *Observant*. Also, messages will be announced on the information boards on level 0, Universiteitssingel 40 East, and also be made known via Eleum/Blackboard if necessary.

**Discount Office**

Students of the Faculty Association 'Luna-tik' run a discount office. Opening hours will be announced before the start of each course. Staff members of the Education Office do not sell books.

**Timetable for each Course Period**

There is a separate timetable for each course period each year. These timetables will be announced on the information boards of the Education Office on level 0 at least one week before the start of the course. Furthermore, timetables are published on

Blackboard. Students should take into account that educational activities can take place in the evening (in the academic year 2006-2007, not later than 22.00 hours as a rule).

### Division into Tutorial Groups

The Education Office of the Faculty of Psychology divides students into tutorial groups. If a student is not mentioned in one of the groups (see timetable board of the Education Office on level 0), he or she can still be placed in a group via a 'naplaatsing' form (to be collected at the education desk of the Education Office).

It is possible that students might want to attend a meeting of a different tutorial group once but this is not allowed. Changing tutorial groups is only allowed during the first week of a course and is only possible by way of an exchange with somebody else. Forms to apply for this can be obtained from the education desk during consulting hours.

### Attendance Register

The tutor of each tutorial group keeps an attendance register. Students must sign a form at the last meeting of each course to indicate their agreement with the registration noted by the tutor. If a student is absent during the last meeting the presumption will be that the student agrees with the registration of attendance. If there is a difference of opinion between the student and the tutor, this must be referred to the Board of Examiners.

### Enrolment for a Course if the Attendance Requirements have already been met in the Previous Academic Year

If a student has met the attendance requirements for a course but has failed the exam, the student will not be automatically placed in one of the groups for the course in the next academic year. If a student wants to take part in the course (e.g. with a view to refreshing the course material) he or she must apply at the Education Office at least two weeks before the course starts and complete and hand in a form for 'naplaatsing'. Depending on the organisational possibilities the application will be agreed to. If one does not apply or applies too late, the Education Office will not place the student in a group.

### Study Programme

At the beginning of each academic year, each student is automatically put into the year in accordance with the EER.

No account will be taken of courses from previous years that still need to be completed. To continue with courses from the previous year(s), a 'naplaatsing' form will have to be completed.

### Exemptions

Exemptions will be considered on the basis of courses done previously and in accordance with the EER. A request for this must be submitted in writing to the Board of Examiners with written proof.

### Illness and Absence

In case of illness/absence for a period of more than 10 consecutive days the student must notify the secretariat of the Education Office in writing, mentioning name, ID Number, address and a short description of the reason/cause and expected duration of absence. When the student has returned / recovered he must report to the Education Office at the first opportunity after the day on which he has returned. Only if this procedure is adhered to can the report of illness be incorporated into the dossier and be used at an examination review and for requests to make up what has been missed. The Board of Examiners may require a statement in certain cases. This statement may also be used as proof in the case of requests from the Auditors Fund or Graduation Fund. It is important to contact the student advisor as soon as possible.

### Discontinuing or interrupting one's study

It is possible that for whatever reasons a student interrupts his study or even stops it altogether during the academic year. In this type of case, it is necessary that the student be informed about the consequences and possible obligations that this involves. The student has to report this to the Education Office and to Student Services. Information about stopping with one's study and a request for the reimbursement of university fees at the UM can be found on the website of Student Services: [www.ssc.unimaas.nl](http://www.ssc.unimaas.nl), press "(her)inschrijving", press "uitschrijving en restitutie". Information about termination of one's study grant can be found on [www.ib-groep.nl](http://www.ib-groep.nl) (termination of one's study grant can be effectuated by means of the 'change' form which can be obtained via the ib-website or at the information desk of Student Services. One should take note of the need to hand in one's public transport (OV) card before the deadline. Reporting an interruption in or discontinuation of one's study on time ensures one's rights as regards the time one is allowed to take for one's study. The university is obliged to report the student's enrolment period to the 'Informatie Beheer Groep' each year.



### Change of Study Address

If a student changes his or her study address this must be reported to Student Services. This can be done with your unimaas account at [www.esc-ssc.unimaas.nl](http://www.esc-ssc.unimaas.nl). One must count on a period of ten working days for this to be processed. The Education Office takes the study address to be the postal address. Post from the Education Office often goes via the students' post box.

### Inspection of Students' Dossiers

A student has the right to look at his/her dossier, in keeping with the privacy regulation of Maastricht University. The student can make an appointment for this with one of the staff members of the Education Office during consulting hours. The dossier contains the enrolment forms and correspondence about the student. Copies of diplomas, registration of study duration and the like are kept at Student Services.

### Medical Aid, Insurances etc.

Statements about enrolment and one's study are issued by Student Services and not by the Education Office. However, the forms for Child Benefit and these matters are signed and stamped by the Education Office.

### Diplomas

The Education Office issues diplomas after the Board of Examiners has confirmed the examination result. Duplicates are not issued. In case of loss or theft this must be reported in writing to the authority that issued the diploma (study programme and Board of Examiners). A statement will be issued declaring when the diploma was issued and the examination programme. NB: Never part with official diplomas, always use photocopies.

#### 6.4.2 Opening Times of the Education Office and Correspondence

##### Education Desk

Students can consult the Education Desk of the Education Office only during opening hours (Level 0, room 0.636a).

The opening hours are: Monday to Friday, 10.00-11.00 hours.

In the first and last week of a course the opening hours are extended to Monday to Thursday, 15.00-16.00 hours.

### Information Boards – Courses and Examinations

All timetables and possible changes, plus the lists of tutorial groups for current courses will be made known on the information boards. In addition, all exam results and overviews of exam dates, etc. will also be made known there. The information boards can be found on level 0, 40 Universiteitssingel East. Changes will also be publicized on Eleum/Blackboard.

#### Post

Post for the Education Office and/or the Board of Examiners can be put in the secretariat post box at the Education Office (room 5.761) or in the education desk post box (level 0).

There are standard forms that deal with the most common questions and procedures. These forms can be found at the education desk but they will also become available via Eleum/Blackboard during the current academic year.

#### *Students' Post boxes*

Each student has his/her own post box. These are on level 0 and are used to distribute information and results. Students also use these to communicate with one another and lecturers make contact with students in this way. The post boxes are arranged according to ID numbers.

#### Postal Address

Universiteit Maastricht, Faculty of Psychology, Education Office, P.O. Box 616, 6200 MD Maastricht

## 6.5 MENTOR

Students in the Research Master will have regular interactions with a mentor, who guides the learning process and supervises the personal growth of the student. Close monitoring of student performance and progression will help ensure that students complete the master's programme on schedule.

The mentor should also fulfil the role of a person the student can trust and rely on. For instance, if a student has either academic or non-academic problems, this student should in principle be able to approach his/her mentor to discuss the issue and together look for a solution.

During the introductory week of the first year, each student is assigned to a senior researcher of a student's specialization as faculty mentor to evaluate progress and

identify potential problems. Students will plan a schedule for meetings with their mentors. Meetings are to take place at least once a month and are generally short (about 30 minutes or less). The student needs to inform the mentor in advance about issues that are to be discussed during the meeting.

## 6.6 STUDENT ADVISORS

Students can contact the student advisor on the following matters:

*Information and Advice on the Study, e.g.:*

- Program Content and Structure;
- Individual Study Program;
- Study Options within and outside the Faculty;
- Study Planning;
- Study Methods.

*Advice on Situations hampering the Study e.g.:*

- Motivation Problems;
- Concentration Problems;
- Psychological Problems;
- (Physical) Handicaps;
- Prolonged Illness.

*Questions and Advice about (Statutory) Regulations, e.g.*

- Regulations for the Financial Support for a Student;
- Student Grants and Loans;
- (Appeal) Procedures;
- Enrolment Options.

The student advisors are Monique Römken, (m.romkens@psychology.unimaas.nl); 40 Universiteitssingel East; Room 5.753; Phone (043) 38 81936 (for students whose surname begin with the letters A to K) and Gerda Galenkamp, (g.galenkamp@psychology.unimaas.nl); 40 Universiteitssingel East; Room 5.753; Phone (043) 38 81888 (for students whose surname begins with the letters L to Z).

Appointments can be made via the secretariat of the Education Office, telephone (043) 38 81911/38 84346.

## 6.7 UNIVERSITY LIBRARY

The University Library (UB) provides services to all staff members and students of Maastricht University, the Maastricht Academic Hospital (azM) and to persons and

institutions in the region, who are members of the UB. The service of the UB to the faculty is reviewed in the faculty library committee of which the following persons are members: representatives of the faculty (staff members and one or more students), and a representative of the UB. There is also a joint library commission for all faculties at Randwyck and the azM: The Commission Scientific Information Randwyck (CWI/R).

### Literature Collection and Locations

The modern literature collection at the UB is specialized in the areas of research and education for the various faculties: i.e. General Sciences, Cultural Sciences, Economics and Business Administration, Law, Medicine, Health Sciences and Psychology. In addition to these specialized areas the UB has a general university collection (interdisciplinary and not geared to a specific faculty), which includes the Jesuit collection (library holdings of the former Jesuit College), with historical works covering all disciplines.

The UB collection is housed in two main locations. The collections in the areas of Medicine, Health Sciences, and Psychology can be found in the UB Randwyck (Universiteitssingel 50).

Economic-statistical works and government publications can be found in the UB City Centre (Grote Looierstraat / Nieuwenhofstraat). The collections pertaining to the faculties in the city centre can also be found there (General Sciences, Cultural Sciences, Economics and Business Administration, Law). The collections and computers of both UB locations can be used by all UM students.

The collections are generally freely accessible and the vast majority of books can be borrowed. The following works cannot be borrowed: reference works, periodicals, books in the Learning Resource Centres, videotapes or dvd's and Doctoral/Master theses. Works, which are less current, like periodicals published before 2001, are stored in the depot (not accessible to the public) and can be asked for with the UM Card. Copying can also be done easily by using the UM Card.

### Looking for Literature

How do you find literature, books and periodicals and other media in the UB collection? Titles of (printed) books and periodicals and videotapes or dvd's can be looked for in the computerized catalogue (OPC) of the UB. There are computers in all library locations where you can consult the OPC, which you can also do from home. 'How to consult the OPC' will be dealt with during the UB introduction in the beginning of the first academic year.

### Extensive Literature Search

All titles that are part of the entire collection of the UB (at both locations) can be looked up with the help of OPC. The Dutch catalogues, like the National Central Catalogue (NCC) and the catalogue articles from periodicals in the Netherlands (OLC / Online Contents) can be consulted at the university or at home via the UB Home Page. Extensive literature search in various international bibliographic databases (literature databases) is possible via the UB Home Page. These databases can be consulted in the UB and in the Learning Resources Centre, and in the Computer Resources Centre of the Psychology Faculty and also at home. Access to UB databases (catalogues, literature data banks and electronic periodicals) from one's computer at home is subject to a number of (technical) conditions. Skills training in searching for literature databases that are important for psychology, like PsycInfo and PubMed, are organised for first year students during the first semester. Third year students learn how to use Endnote, a software program to manage bibliographic citations in a personal database or in a manuscript.

The UB provides regular (bimonthly) courses on PubMed /PsycInfo and (monthly) on EndNote (by registration at the Information Desk – UB Randwijck).

### Borrowing Books

Most books in the library collection can be borrowed. For this, a personal UM Card is needed which has to be activated by the UB the first time it is used. Computerized borrowing is possible via the 'Lendomaat'. The most important rules for borrowing books are:

- The borrowing period is four weeks and can be extended (if the title has not been reserved).
- One can only borrow a maximum of ten books at the same time.
- Books which have been borrowed can be reserved.
- Borrowers can extend the borrowing period themselves and reserve books via the computers in the UB or in the Learning Resources Centre, in the Computer Resources Centre of their faculty or from home.

### UM Card

A valid UM Card is needed to make use of the UB and the Learning Resources Centre; for entering and leaving the UB, for borrowing and making photocopies and for asking for publications from the depot.

### Computer Facilities

There are many computers for students in the Learning Resources Centre for searching and processing information. These computers offer access to the UB catalogue,

the most important literature databases, electronic journals/periodicals and Internet (Internet Explorer and e-mail). Moreover programs have been installed to store and process information (software for database management, spreadsheets, word processing, statistics and graphic programs). A number of these computers can be reserved.

Besides students can make use of computers that are specifically meant for consulting the UB information / literature databases, electronic journals and UB catalogues, on level 1 of the UB. You will find LINK (Reading and Internet Cafe) in front of the UB Randwijck, where UM students can surf and communicate on the Internet.

#### **Audio-visual Media and Multimedia Lab**

Videotapes or dvd's can be viewed individually (AV units) or in groups in a special room (a key can be borrowed for a maximum of 2 hours) on level 3 of the Learning Resources Centre. The Multimedia lab contains 6 computers, which are connected to a (colour)scanner and dvd recorder and are equipped with software for video editing.

#### **Places for studying**

There are various places allocated for studying both in the library and in the Learning Resources Centre; the "silence rooms" on level 1 give one the opportunity to study in silence. There are study rooms for individuals and groups with or without computers, on levels 2 and 3. A limited number of these rooms can be reserved (at the desk of the Learning Resources Centre on level 2).

#### **In Conclusion**

In addition to rules for borrowing books, the UB also has a number of general rules. It is not allowed to enter the library wearing a jacket or carrying a bag. One can use the cloakroom and lockers near the UB entrance. Mobile telephones should be switched off. Those who use the library are expected to put the books they used back in the right place. Smoking and eating is not permitted.

Talking loudly is not allowed in the library and in the Learning Resources Centre to avoid noise disturbance.

More information about the UB services can be found on the UB Home Page ([www.ub.unimaas.nl](http://www.ub.unimaas.nl)). The UB portal for psychology ([www.ub.unimaas.nl/fdp](http://www.ub.unimaas.nl/fdp)) in the 'UB for faculties' column offers specific information for students and staff members of the Faculty of Psychology.

*University Library, Randwyck Address:*  
Universiteitssingel 50  
6229 ER Maastricht

Telephone Information Desk: (043) 38 85142 (general information, information about literature databases and UB courses).

Telephone Lending-Desk: (043) 38 85144 (extension borrowing period / reservation of books, information about UM Card and borrowing from other libraries).

Telephone Learning Resources Centre: (043) 388 5145 (information about Learning Resources Centre, reservation of space).

University Library, Randwyck Office Hours:

Monday to Thursday 08.30 – 22.00 hours

Friday 08.30 – 19.00 hours

Saturday 12.00 – 17.00 hours (open as reference library)

Sunday 12.00 – 17.00 hours (open as reference library)

From Monday to Friday after 17.00 hours the library can be used for studying only. During these hours it is not possible to request of borrow books or journals from the closed stacks. Books from the open shelves can be borrowed by means of the Self Lending Machine (Lendomaat). Books can be returned in the special postbox at the library entrance.

### Basic Textbooks and Learning Resources Centre

#### *General*

The basic textbooks are compiled from a carefully drawn up list, which the psychology lecturers think students should have. The choice of these books has been governed by the following criteria (though various criteria were applied differently for different books): relevance, scientific quality, didactic quality, presumed 'half-life', topical interest and price. The amount reserved for buying books in a student's budget (approx. € 363 p.a.) has also been taken into account.

#### *Function of Learning Resources Centre*

It would be a mistake to assume that one does not need to buy basic textbooks because there are sufficient copies in the Learning Resources Centre. It is not only impossible to have sufficient copies available in the Learning Resources Centre for the large number of students, but also it is not the primary purpose of the Learning Resources Centre. The Centre is there primarily to enable students to search for information relevant to their learning objectives, in a collection of varied sources.

The books used for problem-based learning are categorized in the following manner:

- a. Basic books. These core texts cover a significant part of a particular subject area.
- b. Alternative textbooks. In most scientific fields, a substantial number of introductions, compilations, and surveys dealing with more or less the same topics are available, although each book may discuss the topic in a different manner (different theoretical perspectives, different examples, illustrations, style, organisation of the subject matter, etc.).

- c. Thematic books. These deal with a specific topic, which may be relevant for one or more assignments within a given course.
- d. Reference books. In particular, dictionaries and atlases.
- e. Specialized books. Books containing information not necessarily related to the learning objectives formulated during the tutorial groups.

The emphasis when selecting the book collection for the Learning Resources Centre was not on the basic textbooks, but on the alternative textbooks, thematic books as well as reference books. (It should be clear that specialized books could be found in the library.)

### Exploratory and Process Learning

In most educational systems, the lecturers determine the learning objectives for the students. The subject matter students have to master for the exam, is communicated by way of lecturers, practical training, lecture notes, book lists etc. The lecturer defines the learning activities to be carried out by the student. The students learn what has been told and work through the relevant literature systematically.

In contrast, problem-based learning has the subject matter centred on problems and tasks. Generally speaking, the problems and tasks, with their ensuing learning objectives, are intended to lead students to explore different approaches and consult various sources of information. At times, students may be inclined to limit themselves to the basic textbooks and other required reading only in the working out of the learning objectives. If this is the case, there is the risk that discussion and reporting during the tutorial groups can run dry because everyone has used the same material.

## 6.8 PROGRAMME EVALUATION

One of the ways to guarantee the quality of instruction is the evaluation of the courses offered. An evaluation provides information on educational/didactic problems. In addition, programme evaluation forms the basis for the exchange of information and consultation with those directly involved and also serves as the point of departure for taking and implementing concrete measures for the curriculum.

The evaluation process consists of the following steps:

- Students are asked to complete a questionnaire after finishing the course. This questionnaire serves as a global screening for the instruction given. The purpose of the screening is to find out where problems have arisen, as well as to gain initial insight into the nature of the problem.
- The results of the screening are subsequently made known to all parties concerned, in the form of a short report in which both the quantitative and qualitative data have been worked out.



- On the basis of the information available, concrete measures may be taken to improve the instruction. Such an initiative may come from any of the parties involved; i.e. the Educational Administrator, the Educational Committee, the Programme Director, the Planning Group or the students.

#### The Questionnaire: Administration, Format and Report

The results are based on questionnaires where students can make their opinion on the study programme known. This questionnaire is presented in an electronic format. Students are requested to take the questions seriously, to mention the number of their tutorial group and their ID number. It goes without saying that privacy is guaranteed when the data are processed.

The questionnaire covers questions related to all the important aspects of Problem-Based-Learning. Certain aspects, for instance the role of the tutor, have more questions, while other aspects have only one question. Likert-type questions (totally disagree = 1 to totally agree = 5) are used, questions which are scored on a 10-point scale (e.g. overall grade for the course) and open questions.

The average and standard deviation as well as the minimum and maximum number of respondents are given for each answer. The data are worked out in a report and the tutors receive feedback on their functioning.

Both lecturers and students are involved with the programme evaluation. For most students, this will be limited to the completing of the questionnaire at the end of the course.

Contact Person: Wladimir van Mansum, Education Office, Phone (043) 38 84541, 40 Universiteitssingel East, Room 5.759.

### 6.9 COMPUTERISED INFORMATION SYSTEM (OBTAINING RESULTS)

As it will take several days between the confirmation of the result by the course coordinator and entering it into the computerised information system, the results are publicized on the information boards on level 0, as soon as they are known. When the data have been entered into the computer the lists of results will be removed and students can consult their results themselves and/or print them out via EleUM under the link 'Pandia Student (ISS/Premium)' or via the homepage of the Faculty of Psychology: [www.psychology.unimaas.nl](http://www.psychology.unimaas.nl) under the link 'Reguliere studenten', after which one selects the link 'Pandia student'. If results are missing or are incorrect, the student must hand in a printout with the incorrect data at the Education Office. The student will receive a reaction in his/her post box.

Once a year each student receives an overview for checking the results. Please notify the Education Office of possible mistakes.

Students can direct questions of a general nature to the ICTS service desk, telephone (043) 38 83566. If there are questions about the use of ICT for one's study, please call

on the ICT service desk, at the Computer Resource Centre of the Faculty of Psychology in the Psychology Building on level 1.

## 6.10 INSTRUCTION ROOMS

### Tutorial Group Meeting Rooms

There are 32 tutorial Rooms available in total. Each room has a standard equipment of 14 chairs, and a chalkboard or whiteboard. The tutorial Rooms can be found on level 1 to 5 of 40 Universiteitssingel and on ground level 5 Universiteitssingel.

### Computer Resource Centre

Location Universiteitssingel 40, level 1:  
1.734 and 1.746

### Colloquium Halls

Location Universiteitssingel 40 (Uns 40), level 0:

0.737 Diepenbeekzaal	35 places
0.731 Luikzaal	35 places
0.771 Tongerenzaal	70 places
0.553 Keulenzaal	40 places
K.667 Heerlenzaal (level -1)	50 places

Location P. Debyeplein (Deb 1), level 0:  
D.003 en D.005 35 places

### Lecture Halls

Location Universiteitssingel 40 (Uns 40), level 0:

0.647 Maastrichtzaal	404 places
0.673 Akenzaal	150 places

Location 50 Universiteitssingel (Uns 50), level 0:

0.402 Blauwe zaal	259 places
0.406 Groene zaal	65 places
0.480 Rode zaal	65 places

Location 1 P. Debyeplein (Deb 1), level 0:  
D.001 Auditorium 175 places

### External Spaces

Tests are often done in Sports Halls in:  
Daalhof, Goudenweg 190, 6216 TT Maastricht  
De Heeg, Roserije 500, 6228 DN Maastricht  
Dousberg, Dousbergberg 4, 6216 GC Maastricht  
Geusselt, Olympiaweg 81, 6229 HD Maastricht  
Randwijck, Sorbonnelaan 180, 6229 HD Maastricht  
MECC, Forum 100, 6229 GV Maastricht

## 6.11 EXAMINATION

### Participation

Only students who are listed for a course and students who not yet have passed the test of that course are allowed to attend the written test. Students have to be aware of travelling time as admission to the test is only allowed up to half an hour after the test has started. For other means of assessment and deadlines students will be informed through the course manual and the information on Blackboard.

### Different Forms of Testing

If a student would like to be eligible for another way of taking a test, he or she has to apply to the Board of Examiners. If permission is granted the student must contact the faculty test coordinator at the Education Office at least one week before the test so that further arrangements can be made.

## 6.12 GRADUATION: MASTER DEGREE

A Student who intends to graduate must notify the Education Office using the form "Application Form Master's Examination". The form is available at the Education Office or may be downloaded from Eleum/Blackboard. The form must be handed in no later than **2 months before** the graduation date. A copy of the study results must be attached separately. The student must verify the correctness of the study results, and communicate anything that is unclear or incorrect to the Education Office. This will prevent any unnecessary delay in determining the examination results. Receipt of the Application form will be confirmed by email from the Board of Examiners to the student's *unimaas* email address. This *unimaas* email address will also be used for any correspondence regarding examination and graduation.

Graduation takes place every month. Shortly before the graduation date the student will be notified in writing whether he/she has passed the master's exam. The diploma ceremony takes place only three times a year (see schedule below).

After graduation students can terminate their University Registration, stop their study financing and turn in their OV card. Students can also let their registration (as well as study financing and OV card) run through till the end of the registration period (usually August 31st). In case of the latter students should be aware that the IB group checks for income each calendar year: when this income exceeds a certain amount, students have to pay back their study financing. In that case they can also be fined for unlawfully owning an OV card.

For information on registration termination: [www.ssc.unimaas.nl](http://www.ssc.unimaas.nl); click "(her)inschrijving", then click "uitschrijving" and "restitutie".

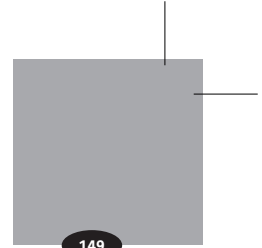
Information concerning termination of study financing: [www.ib-groep.nl](http://www.ib-groep.nl) (termination can be done with a 'wijzigings' form which can be found on the web site, or picked up at the information desks of the Student Service Center). Returning of the OV card has to be done before a deadline.

When the graduation date can not be met, the request will be cancelled and a new request for another date has to be submitted. About two weeks before the diploma ceremony, students will be informed in writing about place and time of the ceremony. When students think they are eligible for 'Cum Laude' graduation, they have to apply for it. Rules for submitting the masters thesis: after submission, reviewers have 20 working days to review the thesis. When the masters thesis has been submitted to the Education office on time, the office will take care that the review is returned on time. Students are responsible for late submission of their master thesis.



# 7

## Subject index



CHAPTER 7

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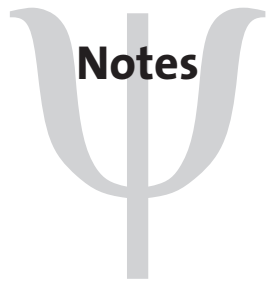
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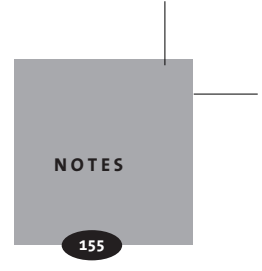
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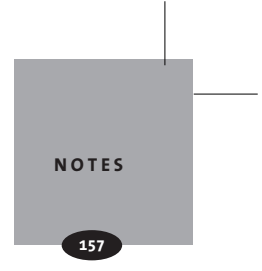
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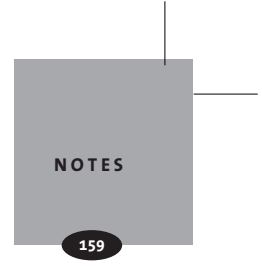
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