Bachelor's year 1

Overview for year 1

Period	Number of weeks	Course		
Period 0	1	PSY1131 Skills I: Learning in Groups		
Period 1	7	PSY1021 Social Behaviour	PSY1022 Methods and Techniques	PSY1132 Skills II: Observation and Presentation.
Period 2	7	PSY1023 Body and Behaviour	PSY1024 Statistics for Psychologists I	PSY1132 Skills II: Observation and Presentation.
Period 3	4	PSY1132 Skills II: Observation and Presentation.		
Period 4	7	PSY1025 Development	PSY1026 Perception	PSY1133 Skills III: Communication and Organisation.
Period 5	7	PSY1027 History and Foundations of Psychology	PSY1028 Learning and the Memory	PSY1133 Skills III: Communication and Organisation.
Period 6	4	PSY1133 Skills III: Communication and Organisation.		

Modules for year 1

Title	Skills I: Learning in Groups
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	0
Code	PSY1131
ECTS credits	2
Organisational unit	Education Office
Coordinator	Wladimir van Mansum
Descriptions	Problem-Based Learning is a unique characteristic of the teaching provided at Maastricht. This educational system focuses upon training students to become independent and enterprising problem-solvers. To be able to achieve this objective, teaching extends beyond the traditional individual study and attending lectures. Students work on concrete problems from the field in small groups. In a team, they analyse problems, attempt to understand the underlying theories and learn to apply their knowledge to recognisable, realistic situations. To perform well within this educational system, it will be vital for students to have a knowledge of backgrounds and the central elements of these. During this course, students learn and practise the skills needed for success in tutorial group meetings. In the introduction week, first-year students will familiarise themselves with Problem-Based Learning and with the communication skills that will be essential for learning in groups. They will do this under the supervision of their mentor and tutor for the first substantive course (Social Behaviour). The group sessions will focus upon practising the implementation of problem tasks on the basis of the 'seven jump' method. Besides this, students will work on a large number of exercises focusing on assertive, regulation and information-gathering skills. Special attention will be paid to individual participation in the groups and the role played by the discussion leader. This first week will consist of five sessions in total: one session of two hours and three sessions of three hours, in which students will practise Problem-Based Learning skills, and one team-building session of three hours on Wednesday. The mentor will be present at the first and last meetings and will also attend the team-building meeting.
Objects	Introduction to the Problem-Based Learning system. Development of communication skills focussing upon working in groups. Gaining experience with team-building. Reflecting on the group process and on one's own performance in the group.
Language of instruction	Dutch
Prerequisites	
Recommended literature	
Teaching methods	
PBL	
Lectures	
Assessment methods	
Attendance	
Key words	Problem-Based Learning, communication skills, team-building, feedback, mentorate.

Title	Social Behaviour
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	Period 1
Code	PSY1021
ECTS credits	6
Organisational unit	Work and Social Psychology
Coordinator	Arjan Bos
Descriptions	Why do we evaluate our own group more positively than we evaluate other groups? When do you perform better? With others or by yourself? Does altruism exist or is helpful behaviour always motivated by egoistic reasons? How can we change negative attitudes to blood donation? Social psychologists have studied questions such as these. Social psychology uses scientific methods to study the way in which our thoughts, feelings and behaviour are influenced by others. In the Social Behaviour course, an introduction is given to the classical themes for social psychology based on nine problems. These themes are: group processes, intergroup relations, stereotypes and prejudices, social influence, attitudes, the self, social cognition, pro-social behaviour and affiliation and attraction. Attention is not limited solely to intrapersonal and interpersonal processes; extensive consideration will also be given to the subject of group processes.
Objectives	The main objective of this course is to provide students with a good introduction to social psychology. Students will study classical and recent social psychological insights, but will also be introduced to research methods within social psychology (for example, the social-psychological experiment).
Language of instruction	Dutch and English
Prerequisites	
Recommended literature	Students are advised to consult one of the following introductions to social psychology: Aronson, E., Wilson, T.D., & Akert, R.M. (2010). Social Psychology (7th ed.). Upper Saddle River, NJ: Pearson Education. Kenrick, D.T., Neuberg, S.L., & Cialdini, R.B. (2010). Social Psychology. Goals in interaction (5th ed.). Upper Saddle River, NJ: Pearson Education. An e-reader containing academic articles has been put together.
Teaching methods	
PBL	
Lectures	
Assignments	
Assessment methods	
Attendance	
Written exam	
Key words	Groups, social psychology, attitudes, social influence, social cognition, stereotypes and prejudices, altruism.

Title	Methods and Techniques
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	Period 1
Code	PSY1022
ECTS credits	6
Organisational unit	Experimental Clinical Psychology
Coordinator	Chantal Nederkoorn
Descriptions	Knowledge acquisition requires research. Because of this, research plays an important role in psychology. In this course, discussion will focus on the steps that are most important for good research. Firstly, an overview will be provided of the field of psychology and of current research questions. Secondly, measurement tools (questionnaires or behavioural observations, for example) must be reliable and valid: they must really measure what you want to measure. Thirdly, you must try to rule out alternative explanations for your findings; a good research design is important for this (using control groups, for example). Finally, you must display the results of your research in the manner most appropriate for this. To enable you to do this, several statistical techniques will be discussed, such as measures of centre, dispersion, contingency tables, correlations and linear regression.
Objectives	In this course, students will familiarise themselves with the most important methods of research and with several statistical techniques. The aim is for students to be able to gain a better understanding of the literature in the rest of the programme. We also want students to learn to adopt a critical stance: Are the conclusions drawn in literature actually correct? The final objective is for students to acquire the knowledge and skills that will make it possible for them to carry out research themselves in the later stages of the study.
Language of instruction	Dutch
Prerequisites	
Recommended literature	Core texts will be announced at a later date.
Teaching methods	
PBL	
Lectures	
Assignments	
Assessment methods	
Attendance	
Written exam	
Key words	Research, design, experiment variables, association, correlation.

Title	Body and Behaviour
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	Period 2
Code	PSY1023
ECTS credits	6
Organisational unit	Cognitive Neuroscience
Coordinator	Michael Capalbo
Descriptions	What causes jetlag? What makes you want a bowl of soup? Why are smokers so attached to their cigarettes? These and other questions will be discussed in the Body and Behaviour course. This course will look in particular at biological explanations for behaviour, on the basis of themes such as sexuality, eating and drinking, sleeping and waking, medicines, exercise and addiction. A knowledge of the biological basis of behaviour is vital for psychologists. Our brain is the most important structure for the explanation of human behaviour. However, establishing a link between the electrical and neurochemical activity in our brains and behaviour is no easy task. Amongst other things, this will require a thorough knowledge of neuroanatomy (how the different parts of the brain are connected to each other), neurophysiology (how brain cells work) and neurotransmission (how brain cells communicate). In the first few weeks of the course, special attention will be paid to the (further) development of this basic knowledge. Besides this, students will learn that knowledge of the biological basis of human behaviour is gained not only from research on people, but on animals too. Finally, the research methods that psychologists use to study the biological basis of behaviour will be discussed. Today, psychologists can use these methods to precisely study the structure and function of the brain. The most important methods will be reviewed and the advantages and disadvantages of these methods will be compared.
Objectives	Firstly, the course aims to teach students basic neuroanatomy and foundations of neurotransmission. Subsequently, the concepts learned will be applied to different aspects of behaviour. Finally, the research methods in this field will be discussed.
Language of instruction	Dutch and English
Prerequisites	
Recommended literature	Breedlove, S.M., Rosenzweig, M.R., & Watson, N.V. (2007). Biological Psychology (5th ed.). Sunderland, MA: Sinauer Associates; Pinel, J.P.J. (2008). Biopsychology (7th ed.). Upper Saddle River, NJ: Prentice Hall; Kalat, J.W. (2006). Biological psychology (9th ed.). London, UK: Wadsworth/Thompson Learning. An e-reader has been put together. Students are also encouraged to actively look for relevant (popular) academic articles themselves.
Teaching methods	
PBL	
Lectures	
Assignments	
Assessment methods	
Attendance	
Written exam	
Key words	Neuroanatomy, neurophysiology, neurotransmission, neuropharmaceuticals, homeostasis, sleep, addiction, sexual development, methods.

Title	Statistics for Psychologists I
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	Period 2
Code	PSY1024
ECTS credits	6
Organisational unit	Faculty Office
Coordinator	Jan Schepers
Descriptions	This course consists of two parts. The first part of the course will look at the foundations of inferential statistics. A great deal of emphasis will be placed on the logic behind the statistical reasoning process. The most important subjects discussed will be the concept of probability, random variables and their probability distributions and test and assessment theory. In the second part of the course, students will familiarise themselves with several statistical techniques often used in the field: t-tests, ANOVA and X^2 tests. In an SPSS practical, students will be given the opportunity to apply these techniques to several real datasets. The subjects covered in the second part of this course will consistently be linked to the basic terms that were explained in the first part of the course.
Objectives	The aim of this course is to familiarise students with the foundations of generalisation (inferential) statistics. After the course, students will be expected to be able to independently apply several statistical tests often used by psychologists.
Language of instruction	Dutch
Prerequisites	
Recommended literature	Moore, D.S., McCabe, G.P., & Craig, B.A. (2009). Introduction to the practice of statistics (6^{th} ed.). New York: W.H. Freeman and Company.
Teaching methods	
Lectures	
Assignments	
Assessment methods	
Attendance	
Participation	
Written exam	
Key words	Test and assessment theory, t-test, ANOVA, chi-square.

Title	SPSS I Practical
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	Period 2
Code	PSY1121
ECTS credits	-
Organisational unit	Faculty Office
Coordinator	Jan Schepers
Descriptions	Psychologists who work with statistics rarely produce calculations manually, but use statistical software to produce the analyses required. SPSS (Statistical Package for the Social Sciences) is the program that psychologists use most. In the first three practicals, students will learn to use the program correctly and will familiarise themselves with the many possibilities that SPSS offers the user. In the last three practicals, students will analyse data from real research and further explore the theory behind the statistics on this basis.
Objectives	After completing these practicals, students will be expected to use SPSS to independently apply the various statistical techniques from Statistics for Psychologists I.
Language of instruction	Dutch
Prerequisites	
Recommended literature	Syllabus SPSS in practical steps
Teaching methods	
Assignments	
Assessment methods	
Attendance	
Key words	SPSS

Title	Skills II: Observation and Presentation
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	1, 2 and 3
Code	PSY1132
ECTS credits	4
Organisational unit	Work and Social Psychology
Coordinator	Gjalt-Jorn Peters
Descriptions	Skills training is supervised by the mentor, who was also involved in the Problem-Based Learning week. In the first two periods, students will carry out their first observation research in groups. Methodological support for these research projects will be provided in the form of two parallel courses: M&T and Statistics I. The content of these projects are linked to the Social Behaviour course in the first period. During periods 1 and 2, the mentor will have four meetings with his/her group, in which he will discuss the progress they have made with their research. During these meetings, attention will also be paid to skills that are relevant at that particular time. For example, students will look at study skills, such as schematic reading, producing a study handbook, self-reflection and the formulation of time management profiles. The idea is for students to document their learning experiences and their reflection on these experiences in a portfolio right from the start. Because the mentor group will consist of the same students as those in the tutorial group for the Social Behaviour course, students will be able to further apply and expand on what they learned in Skills I. In period 3, students will present their research results individually and write a research report. Students will also have their first individual meetings about study progress during this period. The portfolio containing the study results will form the basis for this meeting. Finally, students will participate in two practicals during this period: Learning and Conditioning and Psychological Tests.
Objectives	Reflection on one's own study behaviour with the help of a portfolio. Developing communication skills. Carrying out observational research. Applying theoretical basic knowledge.
Language of instruction	Dutch
Prerequisites	
Recommended literature	
Teaching methods	
Lectures	
Assignments	
Assessment methods	
Attendance	
Written exam	
Key words	Portfolio, research, communication skills, study skills, mentorate.

Title	Development
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	4
Code	PSY1025
ECTS credits	6
Organisational unit	Cognitive Neuroscience
Coordinator	Hanneke van Mier
Descriptions	Development can be regarded as the changes in behaviour that entail an adjustment by a child to his/her physical and social environment. The question of what causes the development of a certain psychological process is key. Is this the result of a maturing of the brain (nature) or environmental factors (nurture), or both? Do cultural differences play a role here? The course will look at the processes and changes that play a role in the psychological change from conception to adolescence. Maturation and development of the central nervous system is one of the subjects that will be studied (biological development). Students will also look at the way in which children learn to observe and think (perceptual and cognitive development), which will include the discussion of a number of theories, including the Piagetian and information-processing development theories. The social, emotional and moral development of the child will be discussed too, such as attachment to parents/carers and the development of shame and aggression. The effect of group processes will primarily be discussed in relation to development during adolescence. Other important subjects are language acquisition, information processing and the development of social cognition.
Objectives	The object of this course is to provide an introduction to recent and current research findings in the field of developmental psychology. Students will gain an insight into the course of psychological development from conception until adulthood and will familiarise themselves with the main psychological theories and methods of research within developmental psychology.
Language of instruction	Dutch and English
Prerequisites	
Recommended literature	Bukatko, D., & Daehler, M.W. (2004). Child development (5th ed.). Boston: Houghton Mifflin Company; Siegler, R.S., Deloache, J.S., & Eisenberg, N. (2010). How children develop (3rd ed.). New York: Worth; Shaffer, D.R. (2007). Developmental psychology: Childhood and adolescence (7th ed.). Belmont: Thomson Wadsworth. An e-reader has been put together.
Teaching methods	
PBL	
Lectures	
Assessment methods	

Attendance	
Written exam	
Key words	Development, cognition, perception, emotion, language.

Title	Perception
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	4
Code	PSY1026
ECTS credits	6
Organisational unit	Cognitive Neuroscience
Coordinator	Milene Bonte
Descriptions	How does our brain construct a picture of the world around us? The ease with which we see, hear, feel and smell makes perception seem easy and effortless. However, this ability is astounding when one considers how complex and diverse our senses are and, more in particular, how systematically the millions of neurons in our brain work together to process all of the various sensory stimuli. The course will start with the following questions: 'What is perception?' and 'How can we measure it? Subsequently, students will give detailed consideration to the question of how light stimuli in the eye and the brain are processed into colours, contrast, movement, depth and visual objects. Building on this, students will study how our auditive system is used to convert sound stimuli into the perception of tones, music, contextual sounds and human speech. At the end of the course, students will design a new perceptual system (the sense of touch) based on functional and structural basic principles of visual and auditive perception.
Objectives	This course introduces students to the biological and cognitive principles that underlie perception. Based on examples from the visual, auditive and somatosensory system, it will focus upon functional and structural characteristics of perception in the brain. Another important object is for students to learn how different research methods can be used to research perception.
Language of instruction	Dutch and English
Prerequisites	
Recommended literature	Goldstein, E. (2009). Sensation and Perception (8th ed.). Wadsworth, Cengage learning. Wolfe, J.M., Kluender, K.R, Levi, D.M. et al. (2009). Sensation and Perception (2nd ed.). Sunderland: Sinauer associates, Inc. An e-reader containing academic articles and several chapters from books has been put together.
Teaching methods	
PBL	
Lectures	
Assessment methods	
Attendance	
Written exam	
Key words	Perception, brains, visual perception, auditive perception, psychophysics, neuroimaging, neuropsychology.

Title	History and Foundations of Psychology
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	5
Code	PSY1027
ECTS credits	6
Organisational unit	Cognitive Neuroscience
Coordinator	Rob de Vries
Descriptions	This course consists of two parts: the history of psychology and the theory of science. The following subjects will be covered in the history part of this course: the substantive, social and institutional causes of the scientific revolution; the development of psychology as a result of the emergence of the modern natural sciences during the scientific revolution; the mind–body problem as a result of the scientific revolution; the influence of the mind–body problem on the development of psychology; the development of and role played by experiments and the laboratory in psychology; the development of early brain physiology; evolution theory and the continuity between humankind and animals; the influence of the latter on the thinking of Sigmund Freud; and the cognitive revolution. The following will be discussed in the scientific theory part of this course: inductivism; critical rationalism (falsificationism); the paradigm theory developed by Thomas Kuhn; and the theory of the scientific research programmes developed by Imre Lakatos. All of these theories attempt to provide an answer to the question of what science is, what makes science so good and, at a very general level, how we should engage in science. What forms the basis for the methodology used?
Objectives	Introduction to the scientific revolution of the sixteenth and seventeenth centuries, which was decisive for our current world view. Consideration of the question of how modern scientific psychology emerged after and as a result of this revolution, enabling students to view modern psychology within the problem development of psychology through the centuries, gain an awareness of its strengths and weaknesses and avoid Burke's famous adage: "Those who don't know history are destined to repeat it". Introduction to and reflection on the various answers to the question: What makes science scientific and what makes science progress?
Language of instruction	Dutch
Prerequisites	
Recommended literature	To be determined at a later date.
Teaching methods	
PBL	
Lectures	
Assessment methods	
Attendance	
Written exam	
Key words	Scientific revolution, mind–body problem, experimental psychology, Darwinism, behaviourism, Freud, demarcation of science-non-science, scientific progress, falsification, paradigms and scientific research programme.

Title	Learning and the Memory
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	5
Code	PSY1028
ECTS credits	6
Organisational unit	Neuropsychology and Psychopharmacology
Coordinator	Anke Sambeth
Descriptions	We continue to learn throughout our lives. At school, we learn to read and to do sums. We also learn to cycle at around the same time. Much later in our lives, we learn how to drive. All this knowledge and skills are stored in our brain somehow or other, where it can be retrieved for use again later. So, how does this work? During this course, we will look at cognitive aspects of learning, remembering, applying knowledge and forgetting. We will also take a close look at the underlying neurobiological processes. We will start by discussing subjects such as conditioning (known as associative learning), and how this is regulated in the brain. Next, a number of essential memory processes will be covered, namely encoding, storage and retrieval. We will view these processes on the basis of different theoretical perspectives. Forgetting will be the subject of detailed attention here, as will the tricks that help someone remember things by storing information better. This could involve making up a story when learning words rather than just simply repeating them. It really does help! The neurobiological aspects of learning and the memory will be discussed too. How is information stored in the brain and where? How do you actually measure it? Our knowledge of learning and the memory is then applied to a number of subjects, such as learning texts and learning in Problem-Based Learning. Finally, we will look at ageing and the influence of brain damage on learning and the memory.
Objectives	The aim of this course is to familiarise students with two fascinating aspects of information processing: learning and the memory. Besides learning about theories on learning, the memory and applying knowledge, students will learn how our brains regulate these processes. Finally, students will familiarise themselves with disrupted learning and memory processes.
Language of instruction	Dutch and English
Prerequisites	
Recommended literature	An e-reader has been put together. Relevant textbooks can be consulted in the Learning and Resource Centre.
Teaching methods	
PBL	
Lectures	
Assessment methods	
Attendance	
Written exam	
Key words	Learning, memory, knowledge, neurobiology, cognitive models, dementia.

Title	Skills III: Communication and Organisation
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	4, 5 and 6
Code	PSY1133
ECTS credits	4
Organisational unit	Experimental Clinical Psychology
Coordinator	Remco Havermans
Descriptions	In periods 4 and 5, students will become competent at academic writing. Based on a number of written exercises, attention will include looking for relevant academic literature, plagiarism and writing in line with current language and style rules. Students will be required to complete three small individual written assignments. Besides this, in the second half of the first academic year, students will engage in a number of activities with their mentor group with the object of familiarising themselves with the various disciplines within psychology (interviews) and with the labour market (organisation of an information market in period 6, in collaboration with Luna-tik, the student council (*S-raad*) & SPS-NIP). In May, the mentor will have another individual meeting with all of the students on study progress.
Objectives	Portfolio-aided reflection on one's study behaviour. Developing communication skills. Initial exercises in academic writing. Researching fields of work for the psychologist. Gaining interview experience. Organising activities.
Language of instruction	Dutch
Prerequisites	
Recommended literature	
Teaching methods	
Lectures	
Assignments	
Assessment methods	
Attendance	
Written exam	
Key words	Portfolio, organisation activities, interviews, writing skills, mentorate.

Title	Progress Test
Academic year	Will be entered automatically
Date last modified	Will be entered automatically
Period	3 and 6
Code	PSY1452
ECTS credits	2
Organisational unit	Work and Social Psychology
Coordinator	Herco Fonteijn
Descriptions	First-year bachelor's students will take a knowledge test twice a year: the progress test. The test contains items that cover the full breadth of the (Maastricht) psychology programme and that are intended to measure the extent to which students are still able to apply concepts long after they have been acquired. The progress test is regarded as the most ideal assessment tool for a Problem-Based Learning environment, partly because the test benefits students who are steering their learning activities themselves and who familiarise themselves at a broad level when doing so. Added to this, the progress test generates feedback to students on strengths and weaknesses in the conceptual framework that they acquire during the course of their studies. Feedback on psychological disciplines for which a student has achieved a moderate score also steers the extra test to be completed by students whose performance is relatively weak, to meet the assessment requirements applicable for the progress test.
Objectives	In a progress test, students are assessed on their knowledge at exit level. As a result, students are able to evaluate their progress in relation to the learning outcomes set in comparison with the results achieved by their own year cohort. The results also give students an insight into the knowledge level achieved in the various sub-disciplines.
Language of instruction	Dutch
Prerequisites	
Recommended literature	
Teaching methods	
PBL	
Assessment methods	
Attendance	
Written exam	
Key words	Declarative knowledge of psychology.

Overview of teaching for year 2

Period	Number of weeks	Course	
Period 0	1	PSY2001 Academic and Professional Skills: Portfolio for Year 2	
Period 1	7	PSY2002 Memory	PSY2003 Personality and Differences between People
Period 2	7	PSY2004 Academic and Professional Skills: Critical Thinking	PSY2005 Psychopathology
Period 3	4	PSY2006 Academic and Professional Skills: Programming	
Period 4	7	PSY2007 Consciousness	PSY2008 Arithmetic
Period 5	7	PSY2009 Research Practical	PSY2010 Statistics II
Period 6	5	PSY2009 Research Practical	

Year 2:

PSY2001 Academic and Professional Skills: Portfolio Year 2 – 2 credits

Coordinator: Gjalt-Jorn Peters, Work and Social Psychology, tel. 38 84508, Universiteitssingel 5, room 3.015,
e-mail: gj.peters@maastrichtuniversity.nl

Objective(s)
The aim of the portfolio is to make students think about their objectives and allow them to actually achieve them. Two skills that are trained here are the identification and clarification of objectives and sub-objectives on the one hand, and the structured pursuance of objectives on the other hand. The portfolio therefore teaches students self-reflection and self-regulation, so that they learn to continually develop and learn new things.

Key words
Personal learning objectives, evaluation, self-reflection, study skills and study progress.

Course description
In this course, students create their own portfolios, which will be updated on a regular basis during the course of their studies. The course consists of a number of parts. The most important of these involves the creation of the portfolio, which students will primarily do independently, after an introductory opening lecture.

The creation of this portfolio will require students to consider the objectives that they want to achieve and ways to achieve them. Added to this, various self-evaluation resources will be used in a tutorial, which will help students to formulate these objectives. Besides this, students will critically read the portfolios produced by fellow students and give feedback on them during the profile meeting, in which they will also receive feedback on their own portfolios. Finally, students will discuss the portfolio in January, in an individual meeting with a member of staff. During this meeting, discussion will focus on the content of the portfolio, study progress, the objectives that the student has set for him- or herself and progress made in relation to these objectives.

Literature
No literature.

Teaching method
Tutorials, profile meeting and portfolio meeting.

Assessment method
This course will be signed off based on attendance at the opening lecture, the tutorial and the profile meeting, the completed portfolio, which has been handed in, and successful completion of the portfolio meeting.

NB: An entry requirement for the portfolio for year 3 is that the portfolio for year 2 has been signed off.

PSY2002 Memory – 5 credits

Coordinator: Anke Sambeth, Neuropsychology and Psychopharmacology, tel. 38 81757, Universiteitssingel 40, East, room 2.741, e-mail: anke.sambeth@maastrichtuniversity.nl

Objective(s)

The aim of this course is to provide an insight into one of the most fascinating elements of information processing: our memory. Besides cognitive theories on memory, students will learn how our brain regulates processes. Finally, students will familiarise themselves with a memory disorder and underlying neurobiological mechanisms.

Key words

Memory, learning, forgetting, dementia, neurobiology and cognitive models.

Course description

We can remember all kinds of things, such as texts – which will enable us to pass an examination, images of our last birthday party or driving a car. This requires a number of different types and quality of memory. For example, remembering an experience from your childhood makes different demands on our cognitive system than finding a bike in a bike shed does. During this course, we will look at cognitive aspects of learning, remembering and forgetting. We will also take a close look at the underlying neurobiological mechanisms. We will start by discussing memory processes, namely encoding, storage and retrieval. We will then view these processes on the basis of different theoretical perspectives. For example, attention will be paid to the subject of detailed attention here, as will the tricks that help someone not to forget by storing information in the memory better. This could involve making up a story when learning words rather than just simply repeating them. It really does help! Which theory can ultimately provide the best explanation of memory? We may never find out, but we can certainly try.

After cognitive psychology, we will move on to discuss neurobiology. How is memory stored in the brain and where? How is it measured? In this context, we will also look at the affect of ageing and brain damage, for example, on memory. Finally, students will learn that cognitive and biological psychology are both important to memory research. Without a well-founded memory test, designed by cognitive psychologists, the biological psychologist will never be able to identity the neural substrate of the memory.

Literature

Students will not be expected to read a core text on the memory, but an e-reader has been put together. Students are also recommended to read a number of chapters from the following publications:

- Gluck, M.A., Mercado, E., & Myers, C.E. (2008). Learning and memory: From brain to behavior. New York, USA: Worth Publishers Inc.
- Neath I, & Surprenant, A.M. (2003). Human memory (2nd ed.). Toronto, Canada: Wadsworth.

PSY2101 Practical: Measuring Memory Functions

Coordinator: Petra Hurks, Neuropsychology and Psychopharmacology, tel. 38 84269, Universiteitssingel 40, East, room 2.747,
e-mail: pm.hurks@maastrichtuniversity.nl

The emphasis on both neurobiological and cognitive aspects of the memory is evident in the practical too. A great deal of attention will be paid to the testing of memory functions, as is customary in neuropsychological practice. Students will practice on each other by completing a battery of tests (the 15-word learning test, Digit Span, etc.), which will enable them to experience for themselves a number of patterns in relation to memory from the cognitive tradition (and the successes, but also the frustrations that these exercises can cause). After practising these tests themselves, students will be presented with a complex case study – in word and image. Neuropsychological research will be conducted on a client with memory complaints. A difficult question arises here, namely whether the memory complaints that this client has can be categorised as 'normal forgetfulness, that we all suffer from every now and again' or whether an actual disorder is involved. Students will be encouraged to find an answer to this question in a plenary context. This approach will enable them to take a look at clinical practice.

Teaching method

Tutorial group meetings, formal lectures and practicals.

Assessment method

The examination will consist of 45 or 50 multiple choice questions, for each of which there will be three possible answers. Forty of these questions must be answered correctly.

PSY2003 Personality and Differences between People – 5 credits

Coordinator: Jonas Lang, Work and Social Psychology, tel. 38 82475, Universiteitssingel 5, room 2.019,
e-mail: jonas.lang@maastrichtuniversity.nl

Objective(s)
Familiarisation with the most important scientific theories on personality, differences between people and intelligence.

Key words
Personality and differences between people, nature-nurture debate, intelligence and tests.

Course description
Anyone who did the courses from the first academic year will know that a range of causes underlie human behaviour, such as 'the brain', 'the situation' and 'information processing mechanisms'. It is striking that the explanation used most in everyday reality has not been included in this list: 'the characteristic'. For example, the behaviour of someone who likes to have people around them and studies hard too is usually ascribed to characteristics such as extraversion, openness, ambition or intelligence. According to current opinion, each individual's behaviour is steered by characteristics, dispositions, qualities or traits of this nature. This aspect of human functioning has not been discussed much yet. In the courses provided in the first academic year, psychologists would seem to be primarily interested in general patterns. They ask questions such as: How are people influenced by others? How is information processed?, etc. This means they are looking at the human race in general and, therefore, at how individuals act, feel and think in certain situations. This course, however, will focus on individual differences. The main point of this course will be to explain why and when one person acts, feels or thinks differently to another person. This will also include the consideration of social implications and applications (staff selection, for example). In addition, students will also consider the way in which differences between people are measured.

Literature
Students can read the following core texts as an introduction to the field relevant to this course:
- Ashton, M. C. (2007). Individual differences and personality. Burlington, MA: Elsevier Academic Press.
- Deary, I. J. (2001). Intelligence: A very short introduction. Oxford, UK: Oxford University Press.
- Nettle, D. (2007). Personality: What makes you the way you are. Oxford, UK: Oxford University Press.

An e-reader has been put together too.

PSY2102 Practical: Measuring Differences between People
Coordinator: Ute Hülsheger, Work and Social Psychology, tel. 38 81959, Universiteitssingel 5, room 2.023,
e-mail: ute.hulsheger@maastrichtuniversity.nl

The objective of this practical is to provide an introduction to administering, processing and interpreting questionnaires and tests. Students will be confronted with several methods of psychological 'assessment'. They will complete and then interpret parts of a test and a questionnaire, which are discussed in the course. An intelligence test and a personality questionnaire will be used. The reliability and validity of measurements will be discussed too. Finally, the students will be familiarised with the various modalities in which psychological research is conducted into the characteristics that individuals have.

Teaching method
Tutorial group meetings, formal lectures and practicals.

Assessment method
The assessment will consist of 45 or 50 multiple choice questions, for each of which there will be three possible answers. Forty of these questions must be answered correctly.

PSY2004 Academic and Professional Skills: Critical Thinking – 6 credits

Coordinator: Arie van der Lugt, Cognitive Neuroscience, tel. 38 82347, Universiteitssingel 40, East, room 5.750,
e-mail: a.vanderlugt@maastrichtuniversity.nl

Objective(s)
Developing basic skills for an argumentation analysis and an introduction to formal logic.

Key words
Argumentation, logic, fallacies and debating.

Course description
Put to the Socrates test! Recommended by philosophers and educationalists! Critical thinking involves more than just a critical attitude: it is a collection of complex cognitive skills. These skills include the interpretation and clarification of meanings, the analysis of ideas and arguments, the evaluation of statements and arguments, drawing conclusions, disputing proof and coming up with alternative conclusions and the presentation of arguments.

In this course, emphasis will be placed in particular on the further development of two skills. Firstly, we will extensively practise the analysis of reasoning: training in informal logic or language proficiency, as it were. These argumentation analyses will result in a better understanding of implicit and explicit reasoning in pieces of text, discussions, public debates and academic articles. Secondly, we will familiarise students with the basic principles of classical and modern logic. We will practise the use of this more formal logical tool extensively too, both during the tutorial group meetings and independently at home. This basic knowledge of logic will be useful when exposing pseudo logic. Fallacies such as the well-known "I fit into my jacket, my jacket fits in my bag, so I fit in my bag" are popular in academic articles too. For example, in an argumentation where certain skills on the part of crows (counting) are elevated to proof, via a middle term (arithmetic), that animals possess complex skills (animals can do maths): after all, the products of science have to be sold too!

During the course and at the end, we will practise the two basic skills, argumentation analysis and logical reasoning, in a more informal manner, in two debates, a poster practical, a number of puzzles and an analysis of academic texts. This will also involve practising many of the practical sub-skills that are important for critical thinking.

Literature
- Hurley, P.J. (2008). A concise introduction to logic (10th ed.). London, UK: Wadsworth/Thompson.

An e-reader has been put together.

PSY2103 Practical: Pseudoscience
Coordinator: Herco Fonteijn, Work and Social Psychology, tel. 38 81907, Universiteitssingel 5, room 2.004a,
e-mail: h.fonteijn@maastrichtuniversity.nl

Within an electronic work space, group members will collect arguments for and against a pre-chosen central statement from a pseudo-academic debate, determine the strength and credibility of these arguments and organise all of this into a visual diagram (argument map). This visual representation of the status of the debate will be presented in the form of a poster to fellow students and will be explained briefly. Fellow students will assess the poster and the presentation. Provided that this assessment does not deviate greatly from the lecturer assessment, the assessment provided by fellow students will apply for each member of the group, except where a group member has not made a demonstrable contribution to the realisation of the product.

Teaching method
Tutorial group meetings, formal lectures and practicals.

Assessment method
The assessment will consist of 30 multiple choice questions, for each of which there will be three possible answers.

PSY2005 Psychopathology – 5 credits

Coordinator: Sandra Mulkens, Experimental Clinical Psychology, tel. 38 84052, Universiteitssingel 40, East, room 3.755, e-mail: s.mulkens@maastrichtuniversity.nl

Objective(s)

Gaining knowledge of frequent psychiatric disorders, particularly of the clinical picture, prevalence, theories on development and continuation of a disorder and different treatments. Critically assessing academic articles on research into the development and treatment of psychopathology. Gaining skills for the administration of an anamnesis interview.

Key words

Psychopathology, psychiatry, cognitive behavioural therapy, psychopharmaca, complaint anamnesis, DSM-IV diagnostics.

Course description

The psychopathology course deals with disturbed, strange, unadjusted, abnormal behaviour. Important clinical pictures will be studied on the basis of a number of case studies and the results of existing experimental research, such as different anxiety disorders, eating disorders, addictions, mood disorders and psychotic disorders.

The following are questions that will be discussed repeatedly during the course: What does the clinical picture look like? When does normal become abnormal? How often does this disorder arise? How does a disorder like this develop? What can be done about it? In this respect, it is important to study why one person develops the disorder while another does not. When discussing this, students will familiarise themselves with all kinds of forms of psychotherapy and pharmacotherapy. What happens in this type of therapy and how effective is it?

Added to the above, the student should notice that there is not just a significant disparity between theory and practice, between clinical action and academic thought; there are different theoretical 'schools' too. These schools explain and treat psychological disorders in line with their favourite theory. When doing this, this will be based not on empirical findings, but on ideology. The question is whether this situation is advisable.

After the course, students will be familiar with the clinical picture and diagnostic criteria for the most frequent psychological disorders, as well as the theories on aetiology, empirical findings that support or contradict the theory, the customary treatments and the effectiveness of these therapies.

Literature

The course book suggests the books *Abnormal Psychology* or *Clinical Psychology*, which include relevant chapters. Students will also consult various academic articles, some of which will be made available in an e-reader, and will be expected to find other articles themselves.

PSY2104 Practical: Complaint Anamnesis

Coordinator: Sandra Mulkens, Experimental Clinical Psychology, tel. 38 84052, Universiteitssingel 40, East, room 3.755, e-mail: s.mulkens@maastrichtuniversity.nl

During the practical, the student will familiarise him/herself with carrying out a complaint anamnesis. In role plays, discussion techniques will be practised, such as carrying out a complaint anamnesis and making a DSM-IV diagnosis. During the training, students will be given the opportunity to apply the techniques learned to simulation patients with various psychological disorders. The practical will be signed off if a student has attained the level of attendance required and an anamnesis report has been assessed as satisfactory. A student will only be able to take part in the practical if he/she has a sufficient spoken and written command of Dutch.

Teaching method

Tutorial group meetings, formal lectures and practicals.

Assessment method

The examination will consist of 45 or 50 multiple choice questions, for each of which there will be three possible answers. Forty of these questions must be answered correctly.

NB: Attendance of PSY1011 Academic and Professional Skills : Communication Skills (see 2.1 'General information' from Chapter 1) must have been signed off before a student is admitted to the practical for PSY2005.

PSY2006 Academic and Professional Skills: Programming – 6 credits

Coordinator: Michael Capalbo, Cognitive Neuroscience, tel. 38 84037, Universiteitssingel 40, East, room 4.741,
e-mail: m.capalbo@maastrichtuniversity.nl

Objective(s)

The aim of this course is to inform students of all of the techniques involved in procedural programming. At the end of this course, students will be familiar with basic algorithmics. This will enable students to independently write programs in the Object Pascal programming language in the future and make it possible for them to learn a different programming language quickly.

Key words

Procedural programming, computational thinking, algorithmics, Pascal and Delphi.

Course description

It is impossible to imagine the workplace without computers today and this situation has given psychologists a very strong tool. The computer and the computer metaphor have become very important in day-to-day professional and research practice. Added to this, psychology content is closely interwoven with computer science. By learning how to program, you are learning not only to impose your will on the computer, but also a new way of thinking.

Programming is not difficult – once you have mastered this way of thinking. One of the most important skills that you will learn during this course is how to unravel seemingly difficult problems into simple problems (for the computer). Obviously, to do this it will be necessary for you to address the computer in its own language. This is not difficult either – there are just a limited number of terms that you will need to know in this course (approximately 15). The rest you will learn later.

We will start with an introduction to the most important basic principles of programming. We will then learn how to dissect complex problems into simple sub-problems, as indicated above: algorithmic thinking. We will also learn how to record these algorithms in a formal, non-technical manner. Armed with this knowledge, we will develop increasingly more complex computer programs to resolve various problems that are relevant for psychology.

We will use the integrated Delphi programming environment and the corresponding Object Pascal language. Delphi is an environment in which an educationally sound programming language, Object Pascal, is combined with a modern and time-efficient development environment. Because we teach students the Object Pascal language, as well as the principles underlying it, they will also find it easier to learn other script and programming languages at the end of this course.

Literature

• Capalbo, M. (Ed.) (2009) *Programmeren* (2nd ed.). Amsterdam: Pearson Education Benelux.

Teaching method

Three-hour tutorial group meetings, two of which will be spent on training. During the tutorial group meetings, students will be required to hand in four compulsory assignments. Besides this, there will be formal lectures and a question and answer lecture.

Assessment method

The examination will consist of an open book final examination on the computer in the form of debugging and programming assignments.

PSY2007 Consciousness – 5 credits

Coordinator: Rob de Vries, Cognitive Neuroscience, tel. 38 81894, Universiteitssingel 40, East, room 4.767,
e-mail: r.devries@maastrichtuniversity.nl

Objective(s)

The aim of this course is to familiarise students in more detail with the latest cognitive, neurocognitive and neuropsychological ideas in the field of consciousness and philosophical reflection on problems linked to the term 'consciousness'.

Key words

Introspection, split brain, blindsight, synchronous oscillation, unconscious processing, freedom, dreams and vegetative states.

Course description

Consciousness, conscious experiences and perceptions were the most important subjects of nineteenth century psychology. With the advent of behaviourism, consciousness disappeared from the psychological agenda. Consciousness has only returned to the cognitive and neurosciences in recent decades. Today, consciousness is again regarded as one of the most important aspects of mental life. This course will look at both the material basis and role played by consciousness in mental life, as well as the philosophical problems relating to the relationship between conscious experiences and the processes that form the material carriers of these conscious processes. Important questions and subjects are: What is consciousness? Which philosophical problems relate to consciousness? Are there neurophysiological correlates of consciousness? Does consciousness form a unit or do split-brain patients have two separate minds or 'consciousnesses'? Can criteria be used to establish whether or not someone is conscious? This is a problem that is of practical importance to the question of whether or not we disconnect patients or relatives in a coma or vegetative state from equipment that is keeping them alive. However, more technical problems will be discussed too, such as: What problem is caused by binding? Does binding occur during the synchronous oscillations in the gamma band? And do these synchronous oscillations explain the unity of consciousness? Does introspection give us access to the content and processes of our consciousness? Are there important forms of mental processes, such as thinking and reasoning, which are unconscious? What do dissociation phenomena tell us about the unconscious? Special conscious states such as dreaming and the various theories about dreams will be discussed, as well as the research done by Libet into the neurophysiological correlates of free will and criticism of this.

Literature

An e-reader has been put together.

Teaching method

Tutorial group meetings and formal lectures.

Assessment method

The examination will consist of a number of open questions.

PSY2008 Computing – 5 credits

Coordinator: Herco Fonteijn, Work and Social Psychology, tel. 38 81907, Universiteitssingel 5, room 2.004a,
e-mail: h.fonteijn@maastrichtuniversity.nl

Objective(s)
This course will provide an introduction to cognitive science and be an initial introduction to the use of computational models in psychology.

Key words
Cognitive science, cognitive modelling, human–machine interaction, searching and learning.

Course description
Psychological hypotheses are increasingly being specified in the form of computational models. Precision, transparency and the heuristic value of these models on the one hand and the availability of sufficient computing capability on the other hand explain their popularity. Cognitive psychological theories have increasingly come to depend on symbolic architectures for problem solving, reasoning and knowledge acquisition and/or on connectionist models of aspects of human learning, categorisation, observation, memory and attention. In biological psychology, theories are developed and assessed using models of the behaviour of networks of neurons. In this course, several influential architectures and algorithms will be discussed, in conjunction with various biopsychological phenomena that have shaped them.

The course will start with a reflection on the nature of cognitive science and historic contributions from Turing and Marr. Attention will also turn to developments in artificial intelligence and the resulting changes in the division of duties between man and machines. Next, students will study creativity and search models. Of course, the question "Can computers be creative?" is also an invitation to students to consider human creativity. Subsequently, learning will be key in three tasks relating to connectionist models. The value of these models will be illustrated in a number of ways, one of these being the fear conditioning theory developed by LeDoux and a simple model of the hippocampus. Added to this, students will look at ACT-R, one of the most influential cognitive architectures, in which classical, symbolic and connectionist principles have been integrated.

In the last part of the course, several subjects will be discussed that have posed problems for classical cognitive science. The role played by emotions is discussed in a task relating to the theme of self-control. Time, a factor that is often neglected, is considered in a task dedicated to application of the dynamic system theory in psychological research (into motor development and attitude polarisation, for example). A third point of criticism in relation to cognitive science is the lack of attention for the physical and social environment of the subject and is key to a final task on distributed cognition, swarm intelligence, autonomous agents and ethical questions that are raised in the context of the development of intelligent machines.

Literature
An e-reader has been put together.

PSY2105 Practical: Connectionist Models
Coordinator: Michael Capalbo, Cognitive Neuroscience, tel. 38 84037, Universiteitssingel 40, East, room 4.741,
e-mail: m.capalbo@maastrichtuniversity.nl

Several practical exercises provide further insight into the nature and application of connectionist models. Students will also familiarise themselves with a realistic network simulator. The exercises will be completed under supervision in the Computer Resource Centre.

Teaching method
Tutorial group meetings, formal lectures and practicals.

Assessment method
The examination will consist of a combination of open questions and 25 multiple choice questions, for each of which there will be three possible answers. Twenty of these multiple choice questions must be answered correctly.

PSY2009 Research Practical – 11 credits

Coordinator: Hugo Alberts, Experimental Clinical Psychology, tel. 38 81948, Universiteitssingel 40, East, room 3.755, e-mail: h.alberts@maastrichtuniversity.nl

Objective(s)

The objective of this research practical is to offer students intensive training in empirical research skills, in which every stage of empirical research is covered: the translation of a general research question into a feasible hypothesis, operationalisation of this hypothesis, determination of the design for the study, collection of research data, data analysis, interpretation of the results, production of a research report in the form of an academic article and presentation of the research.

Key words

Research, research skills, data analysis, data collection and ethics.

Course description

This research practical will last a period of 12 weeks, during which students will look at the various stages of the empirical cycle in small groups, supervised by a researcher. The research practical will conclude with a symposium in which the research is presented in the form of a lecture or poster.

The approximate course structure is as follows:
Weeks 1 to 4 inclusive: studying literature, formulating the research question and hypothesis, establishing the research design and the statistical analysis. The research protocol will be written and submitted to the Psychology Ethics Committee (ECP) for its approval. After obtaining the approval of the ECP, test participants will be recruited. Students will start to write the research report (introduction and method);
Weeks 5–8 : data collection and continuing to write the research report;
Weeks 7–8: data analysis, discussion and evaluation of the research question and interpretation of the data;
Week 9: writing the research report in English (consisting of: introduction, method, results and discussion in line with the APA format for an academic article);
Weeks 10–11: assessment of research reports by the tutor. The students will also act as each other's reviewers;
Week 12: feedback on the research reports by fellow students. Presentation of findings at the concluding symposium, in the form of a poster or a lecture.

In lectures, consideration will be given to relevant themes, such as impressive experiments within psychology, which different designs and research methods there are, research ethics and how articles can be read, written and discussed. Literature will also be available on these themes.

Literature

In this course, students will primarily be expected to find literature relevant for their particular research themselves.

PSY2106 Practical: Symposium

Coordinator: Hugo Alberts, Experimental Clinical Psychology, tel. 38 81948, Universiteitssingel 40, East, room 3.755, e-mail: h.alberts@maastrichtuniversity.nl

The practical is an academic symposium at which students present their research. The practical will be signed off if students are able to demonstrate their full attendance at the symposium.

Teaching method

Tutorial group meetings in consultation with the tutor and formal lectures.

Assessment method

Signing off will be effected on the basis of the contribution to and participation in the meetings, the research report and the individual contribution made to this.

NB: Admission to PSY2010 will require the successful completion of at least two of the following three courses: PSY1006 Methods and Techniques, PSY1007 Writing an Article and PSY1008 Statistics I.

PSY2010 Statistics II – 6 credits

Coordinator: Nick Broers, Faculty Office, tel. 38 81929, Universiteitssingel 5, room1.014 (Tuesdays and Thursdays), or the Methodology and Statistics Department, tel. 38 82274, Debyeplein 1, room B2.03 (Mondays, Wednesdays and Fridays), e-mail: nick.broers@stat.unimaas.nl

Objective(s)

The objective of this course is to familiarise students with a number of popular statistical models for the analysis of experimental and correlational research designs. At the end of the course, students will be expected to be able to apply these models independently in their own research.

Key words

Experimental versus correlational research, between groups versus within groups designs, variance analysis, covariance analysis and regression analysis.

Course description

An experiment-oriented research tradition exists within psychology, although quasi-experiments and correlational research regularly feature too. Besides this, the data to be analysed are often quantitative, such as test scores and response times. The most customary statistical analysis method for quantitative data from experimental research is the variance analysis (ANOVA), while the most customary statistical analysis method for correlational research is the regression analysis. In this course, the student will be familiarised with the logic of and application possibilities for the variance analysis and, to a lesser extent, the regression analysis, building on the one-way ANOVA and regression analysis discussed in the first academic year. A guideline here will be the distinction between between-subject (BS) and within-subject (WS) experiments and the distinction between experimental, quasi-experimental and correlational research.

The course consists of six modules, each of which will last a week. For each module, a design and the corresponding analysis method will be discussed in a combination of formal lecture, tutorial group, tutorial and SPSS practical.
Module 1: Repeat of the one-way BS design, one-way ANOVA, multiple comparisons. Introduction of the orthogonal ('balanced') two-way BS design, two-way ANOVA.
Module 2: The orthogonal ('balanced') two-way BS design, two-way ANOVA, interaction, main effects, simple effects, relation to the unpaired t-tests; the non-orthogonal ('unbalanced') two-way BS design, two-way ANOVA, confounding and adjustment.
Module 3: BS experiment and quasi-experiment with a covariate such as age or a preliminary measurement, covariance analysis (ANCOVA), the two functions of a covariate (power increase, correction for confounding).
Module 4: Correlational research, regression analysis with a number of predictors.
Module 5: The one-way within-subject (WS) design, repeated ANOVA measurements based on the univariate, epsilon-adjusted univariate, and multivariate method, relationships with the paired t-test.
Module 6: The two-way WS design, the split-plot (BS*WS) design for BS experiments with repeated subsequent measurements and WS experiments with a BS factor, repeated ANOVA measurements for these designs.

Literature

- Field, A. (2009). Discovering statistics using SPSS (3rd ed.). London, UK: Sage Publications;
- Van Breukelen, G., & Broers, N.J. (2004). *Variantie-analyse, covariantie-analyse en regressie-analyse*. Electronic syllabus that will be published on EleUM;
- A short text on power analysis. This text will also be made available electronically via EleUM.

PSY2107 Practical: SPSS

Coordinator: Nick Broers, Faculty Office, tel. 38 81929, Universiteitssingel 5, room 1.014 (Tuesdays and Thursdays), or the Methodology and Statistics Department,
tel. 38 82274, Debyeplein 1, room B2.03 (Mondays, Wednesdays and Fridays), e-mail: nick.broers@stat.unimaas.nl

Each module will include an SPSS practical in which realistic datasets will be used to practise the subject matter relevant to the week in question. A series of questions will be asked about the output produced, which students will be required to answer independently. Students will then be expected to bring the output and answers with them to the corresponding tutorial and to the corresponding tutorial group, where the material will be worked on further.

Teaching method

There are six modules, each lasting a week. The relevant design and analysis method for each module will be explained and demonstrated with a case study, followed by hard copy and computer exercises in a tutor group meeting, SPSS practical and tutorial. The course will conclude with a question and answer lecture in week 7.

Assessment method
The examination will consist of 18 multiple choice questions, for each of which there will be three possible answers. It is an open book examination, but students will not be permitted to use past papers during this examination.

3. General information

Before the start of the third academic year, you will have chosen between the two specialisations offered: Biological Psychology or Cognitive Psychology. The year will start with a week in which students will work on their portfolios. The first two periods of the year will be used for three basic courses for the form of bachelor's chosen and one course on statistics. In the third period – January – students will be expected to choose between doing a psychodiagnostics course or writing the bachelor's thesis. This does not mean that students will actually be expected to complete the bachelor's thesis during this four-week period. Writing the bachelor's thesis is a process that will be spread out over a longer period. For example, a plan must be handed in before Christmas and the first complete version must have been finished by the first week of May. It is also possible for students to do electives elsewhere at this stage. In periods 4 and 5, electives will be offered by the faculty itself. Students will be able to take a total of four courses and will be encouraged not to do all of their electives at Maastricht University, as it will be very instructive for them to take a look elsewhere, in this case at other Maastricht faculties and/or at other universities in the Netherlands and abroad. In period 6, students will be able to take the psychodiagnostics course or finish writing the bachelor's thesis. Here too, students will be able to do an elective elsewhere.

Timetable
In the periods in which two courses run parallel to each other, the timetable has been organised to include three tutorial group meetings every week: two for one course and one for the other course. If in week 1, course A involves two tutorial group meetings (on Monday and Friday), course B will schedule one meeting (on Wednesday). In week 2, the opposite will apply: course A will schedule one tutorial group meeting (on Wednesday), while course B will schedule two (on Monday and Friday). This schedule will apply for the first six weeks of a course. In week 7, the final tutorial group meeting for course A will be on Monday, while the final tutorial group meeting for course B will be on Tuesday. The exam for course A will be on Wednesday of the same week, while the exam for course B will be on Friday of the same week. The timetable for the electives (periods 4 and 5) will deviate from this pattern.

Admission to the third academic year
Students will be expected to attain all of the credits for the first academic year (60 credits) before they are admitted to the third academic year (60 credits). To be able to take part in portfolio PSY3001, portfolio PSY2001 must have been completed successfully.

Regulation on English-language courses
Just as for the previous academic years, participation by international exchange students is encouraged for the third academic year. To this end, the course books for the courses offered by both forms of bachelor's have been written in English. The language of instruction used during the formal lectures, the tutorial group meetings and the practicals will be Dutch. One of the tutorial groups will only be delivered in English if a foreign exchange student enrols for a course. In this situation, regular students will be able to enrol in a group (or groups) of this nature too. There are two exceptions to this, the PSY3006 and PSY3007 courses: they will be delivered entirely in English.

Core texts
In the third academic year, less use will be made of core texts than in the first and second academic years. If a core text is used in a certain course, further information about it will be available in the course book in question. It is possible (for members) to buy textbooks with a discount via the Luna-tik faculty association. E-mail:lunatik@maastrichtuniversity.nl.

Test participant obligation
The bachelor's examination includes a subject obligation of 10 test participant hours. To fulfil this obligation, students must spend 10 hours participating as test participants in research that is being carried out by either students or staff within the faculty (the FPN). Third-year bachelor's students from the FPN conduct research in the context of their bachelor's thesis or electives, while master's students conduct research as part of their research placement. Staff from the FPN do their own research. See the EleUM for the full text of the regulation. This study component will be signed off in year 3.

Overview of teaching for year 3

Period	Number of weeks	Course

Period 0	1	PSY3001 Academic and Professional Skills: Portfolio for Year 3	
Period 1	7	Cognitive PSY3002 Decision Making	Biological PSY3005 The Brain and Cognition
		PSY3008 Statistics III	
Period 2	7	PSY3004 Learning PSY3003 Paradigms in the Lab	PSY3007 Biological Psychology: Theoretical Perspectives PSY3006 Biological Psychology: Research Methods
Period 3	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	
Period 4/5	14	3.4/3.5 Electives	
Period 6	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	

Year 3:

PSY3001 Academic skills: Portfolio for Year 3 – 2 credits

Coordinator: Gjalt-Jorn Peters, Work and Social Psychology, tel. 38 84508, Universiteitssingel 5, room 3.015,
e-mail: gj.peters@maastrichtuniversity.nl

Objective(s)
The purpose of the portfolio is to make students think about their objectives and allow them to actually achieve them. Two skills that are trained here are the identification and clarification of objectives on the one hand and the structured pursuance of objectives on the other hand. The portfolio therefore teaches students self-reflection and self-regulations, so that they learn to continually develop and learn new things.

Key words
Personal learning objectives, evaluation, self-reflection, study skills and study progress.

Course description
The PSY3001 portfolio course will build on portfolio course PSY2001. The course consists of a number of parts. The most important part will involve updating the portfolio that students created in the previous study year. Updating this portfolio will require students to consider objectives that they wanted to achieve the year before, the extent to which they were successful and which objectives can now be added. Emphasis will be on the learning pathway applicable for students in year 3, in the run-up to completion of the bachelor's programme. Given this fact, a great deal of attention will be paid to master's programmes and to jobs in which students are interested. Therefore, in the tutorial, students will learn how to put together a CV and to write a letter of application. In conclusion of the portfolio week, students will use the profile meeting to evaluate the portfolio, the CV and the letter of application written by fellow students and their own portfolios, CVs and letters of application will be discussed too. Finally, students will discuss their portfolios in an individual meeting with a member of staff in June. This meeting will focus on the content of the portfolio, study progress, the objectives that the student in question has set him-/herself and his/her progress in relation to these objectives. Special attention will also be paid to the future of the student after completing the bachelor's.

Literature
No literature.

Teaching method
Tutorials, profile meeting and final meeting.

Assessment method
This course will be signed off based on attendance at the opening lecture, the tutorial and the profile meeting, the complete portfolio, which has been handed in, and successful completion of the portfolio meeting.

3.2.1 The bachelor's specialisation in Cognitive Psychology

Basic programme for Cognitive Psychology

During the first two years of the Psychology programme, students will have familiarised themselves with cognitive science in general and cognitive psychology in particular in a large number of courses. The knowledge acquired in relation to the various cognitive psychological core themes will be developed further and applied in the third-year programme of the bachelor's specialisation in Cognitive Psychology.

The first period of the specialisation consists of two basic courses that are delivered parallel to each other: PSY3002 Decision-Making and PSY3003 Paradigms in the Lab. The third course – PSY3004 Learning – will be delivered in the second period, parallel to Statistics III (PSY3008). The question of how people make decisions and which factors may influence the decision-making process are central to the Decision-Making course. Many people think that they take decisions that are of a predominantly rational nature, but is this really true? In Paradigms in the Lab, students will study a number of popular cognitive psychological research paradigms. How exactly do these paradigms work and what are they used for? The course consists of both theoretical and practical elements. In the practical part, students will learn to apply and use the paradigms themselves. During the Learning course, it will become clear to students that people learn in all kinds of different ways. This course will focus on what happens when people learn, which processes influence learning and how the outcomes of learning can be measured. In the three courses, the various themes that apply for the three tracks of the master's specialisation in Applied Cognitive Psychology will be elaborated on, which will enable students to form an impression at this stage and may help them prepare to choose a particular track.

After completing the basic courses for Cognitive Psychology and the Statistics III course, students will spend the next six months completing the compulsory Psychodiagnostics course and electives. Students will also write their bachelor's thesis during this period.

Overview of teaching for year 3, bachelor's specialisation in Cognitive Psychology

Period	Number of weeks	Course	
Period 0	1	PSY3001 Academic and Professional Skills: Portfolio for Year 3	
Period 1	7	PSY3002 Decision-Making	PSY3008 Statistics III
Period 2	7	PSY3004 Learning	PSY3003 Paradigms in the Lab
Period 3	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	
Period 4/5	14	3.4/3.5 Electives	
Period 6	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	

PSY3002 Decision-Making – 5 credits

Coordinator: Herco Fonteijn, Work and Social Psychology, tel. 38 81907, Universiteitssingel 5, room 2.004a,
e-mail: h.fonteijn@maastrichtuniversity.nl

Objective(s)

The primary objective of the course is to enable students to familiarise themselves with psychological research into the way in which people do and could make decisions. As the course progresses, students will gain an overview of important and recent research themes and theories in the field of psychology and decision-making and will familiarise themselves with current research paradigms and methods.

Key words

Normative and descriptive decision models, dual process models, metacognition, affective forecasting, moral decision-making, neuroeconomics, naturalistic decision-making and social dilemmas.

Course description

This course is about making decisions and particularly about how people make decisions in their everyday lives. Why did you decide to study in Maastricht? How do you make a decision when you are looking for a mobile phone or new shoes? Which roles do emotions and gut feelings play? Is it possible that we make different decisions when we are happy? Do emotions stand in the way of rational consideration? Are our decisions rational at all and what exactly is a rational decision? How do we respond to information about risks and is it possible that we make different decisions when we are under time pressure? How do our preferences change over time? Do we make better decisions in groups or by ourselves? What role is played by fear, greed and confidence when making decisions in groups? And how do we develop? Do adolescents reason and decide differently to the way adults do? And – of course – how do psychologists study decision-making processes? Which research paradigms and methods do they use? These and many related questions will be discussed in this course.

The content of the course transcends the individual master's tracks: in principle, all of the subjects that are discussed are relevant for all of the cognitive master's tracks. In formal lectures, consideration will be given to applications in the field of health and social psychology, work and organisational psychology and legal psychology.

Literature

Students will be expected to find appropriate literature themselves.

Teaching method

Tutorial group meetings and formal lectures.

Assessment method

The examination will consist of a number of open questions.

PSY3003 Paradigms in the Lab – 5 credits

Coordinator: Fren Smulders, Cognitive Neuroscience, tel. 38 81909, Universiteitssingel 40, East, room 4.777a,
e-mail: f.smulders@maastrichtuniversity.nl

Objective(s)

Introduction to popular experimental-psychological paradigms, their application in various areas of psychology and their implementation on a computer. In addition to behavioural measures, such as response times and accuracy, students will study how the body and brain react too.

Key words

Attention, emotion, automatic processes, response time, signal detection theory, psycho-physiology and neuroimaging.

Course description

As experimental psychologists, we assume that you can research the way in which the human mind works by putting people to work on a computer experiment in a lab, with just several properly verified variables. We try to isolate certain functions by means of very careful manipulations of the experiment and by measuring the effect on behaviour, these functions yield up their characteristics. We believe that these functions also play a role in everyday functioning, both normal and abnormal. We will follow this experimental tradition in this course. We will discuss a number of mental functions, including attention, emotion, inhibition, memory and unconscious processes. The paradigms are applied in health and social psychology, work and organisational psychology and legal psychology. For example, they are used to measure the attention that we automatically give to things that are able to evoke an emotion or the associations that are activated by socially relevant stimuli. The reactions observed in the body and the brain – of increasing importance for cognitive psychologists – will be involved here too. The course offers students an introduction to various paradigms that are currently at the centre of academic interest. At a theoretical level, students will look at their background and underlying mental processes and at their use in one of the areas of application. At a practical level, they will learn how to implement them in a computer with the help of special software (an 'experiment generator') and then how to analyse the quantitative data that this yields. Response time is a popular indicator, so students will look at the possibilities and limitations that apply for it. Several psychophysiological variables will be dealt with in the same manner. In this way, the course will provide a good basis for a placement and a career in scientific research. Papers are based on the practicals.

Literature

An e-reader has been put together.

Practicals:

Coordinator: Robert van Doorn, Work and Social Psychology, tel. 38 81926, Universiteitssingel 5, room 2.014,
e-mail: r.vandoorn@maastrichtuniversity.nl

PSY3150 Practical 1: E-prime

Students will spend a number of sessions looking at the use of the E-Prime experiment generator. Students will learn to implement a paradigm and to analyse the data obtained.

PSY3151 Practical 2: Psychophysiology

Students will spend one session collecting psychophysiological data, while the corresponding computer analysis will follow in a separate session.

Teaching method

The nature of the course means that there will be more practicals and fewer tutorial groups than normal. There will be a practical on a weekly basis. Broadly speaking, the course will include tutorial group meetings, lectures and practicals.

Assessment method

The examination will consist of a number of open questions.

PSY3004 Learning – 5 credits

Coordinator: Margje van de Wiel, Work and Social Psychology, tel. 38 82171, Universiteitssingel 5, room 2.002, e-mail: m.vandewiel@maastrichtuniversity.nl

Objective(s)
Gaining knowledge about various learning theories and their application in different contexts and consideration of the methods that are used to measure learning results.

Key words
Learning theories, knowledge representation, modelling, motivation, expertise and Problem-Based Learning.

Course description
Learning is not just something you do at school; you continue to do it throughout your life. As soon as you are born, you process the impressions that you gain as you try to get to grips with the world around you. You learn from your experiences and, by doing so, create knowledge of the world around you. Learning happens consciously and unconsciously, intentionally and unintentionally. Much learning is of a social nature: you see examples of behaviour around you and the consequences that this has.

At schools and sports clubs, in company training courses, health information programmes and therapies, individuals are geared towards learning specific knowledge and skills and/or changing behaviour. How this is done will depend on the attitude that an individual has towards learning and what is to be learned. The discussion of "new learning" and the *studiehuis* (a new approach to learning at upper secondary level) shows that opinions are divided on this subject.

In this course, we will discuss theories on learning. From the perspective of cognitive psychology, we will focus on what happens in your head when you learn. How do you represent knowledge? How do these representations change? What learning mechanisms are there? We will also look at social processes and at the individual differences that affect the learning process, such as prior knowledge, motivation and the way in which people steer their learning themselves and interpret the result. One important point for discussion continues to be whether talent is necessary to become very good at something, or whether targeted and repeated practice will suffice.

All theories are possible to apply here and will be discussed on the basis of subjects such as learning texts, learning in Problem-Based Learning, the development of cognitive skills such as arithmetic, programming and diagnosis, overcoming phobias with the help of therapy, the approach adopted when writing a final paper, the strength and danger of clinical intuition and the importance of feedback for expertise development.

Literature
An e-reader has been put together. Relevant textbooks may be consulted in the Learning and Resource Centre.

PSY3152 Practical: Measuring Learning Results
Coordinators: Alicia Walkowiak, Work and Social Psychology, tel. 38 84215, Universiteitssingel 5, room 2.022, e-mail: alicia.walkowiak@maastrichtuniversity.nl; Margje van de Wiel, Work and Social Psychology, tel. 38 82171, Universiteitssingel 5, room 2.002, e-mail: m.vandewiel@maastrichtuniversity.nl

The measurement of learning results will be key in the practical. The ability to measure the outcomes of learning processes – the learning results – is important for both research and education. Otherwise, how would it be possible to establish whether your intervention (education, method of instruction or experimental manipulation) has been effective and whether students have attained the level of knowledge envisaged? In the practical, students will formulate examination questions and the corresponding scoring models on the subject matter at hand, based on concept maps in which the most important concepts and their mutual relationship, and the cognitive level envisaged, are specified. Based on relevant criteria, students themselves will assess how good their examination tool is. Students will be given feedback on a first assignment in a practical meeting and will be assessed on a second assignment, on the basis of which the practical will be signed off.

Teaching method
Tutorial group meetings, lectures and practicals.

Assessment method
The examination will consist of a number of open questions.

3.2.2 The bachelor's specialisation in Biological Psychology

Basic programme for Biological Psychology

The current biological revolution in psychology is determining the face of psychology today to an important extent. Within biological psychology, 'man as an information-processing system' is key and when studying this cognitive functioning, great importance is placed on the biological factors that play a role here. The way in which we observe, remember, speak, calculate and move, amongst other things, is therefore determined by the development and functioning of the nervous system and brain. This starting point means that pre-school children have cognitive skills that are different in part to those of older children, adults or old people. Children who have a congenital disorder in cognitive functioning are characterised by problems that differ from the problems experienced by adults that have only started to suffer from a disorder in cognitive functioning at a later age. Students will be equipped with the building blocks they will need to achieve an understanding of the connection between biological factors and cognitive functioning in three courses.

The bachelor's specialisation in Biological Psychology will start with three basic courses in biological psychology. These three basic courses will build on the basic knowledge attained in the first and second-year courses and form good preparation for a specialisation in Biological Psychology in the master's programme. During period 1, students will be able to take the following basic courses: PSY3005 Neuroscience of Action and PSY3006 Biological Psychology: Research Methods. In the course Neuroscience of Action, students will deepen their knowledge of functional anatomy, physiology and the plasticity of the nervous system. The Biological Psychology: Research Methods course will look at the research methods that are the most important methods used within the cognitive neurosciences and their connection with theory development within this discipline. In period 2, the third basic course, PSY3007 Biological Psychology: Theoretical Perspectives, will be offered. In this course, discussion will focus on the theoretical approaches to cognitive function from the perspective of biological psychology. The course PSY3008 Statistics III will run parallel to this course.

After completing the three basic courses for Biological Psychology and the course Statistics III, students will spend a period of six months doing the compulsory Psychodiagnostics course and electives. Students will also write their bachelor's thesis during this period.

Overview of teaching for year 3, bachelor's specialisation in Biological Psychology

Period	Number of weeks	Course	
Period 0	1	PSY3001 Academic and Professional Skills: Portfolio Year 3	
Period 1	7	PSY3005 Neuroscience and Action	PSY3008 Statistics III
Period 2	7	PSY3007 Biological Psychology: Theoretical Perspectives	PSY3006 Biological Psychology: Research Methods
Period 3	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	
Period 4/5	14	3.4/3.5 Electives	
Period 6	4	PSY3009 Psychodiagnostics PSY3010 Bachelor's Thesis	

PSY3005 Neuroscience and Action – 5 credits

Coordinator: Wijnand Raaijmakers, Cognitive Neuroscience, tel. 38 81880, Universiteitssingel 40, East, room 4.777a, e-mail: w.raaijmakers@maastrichtuniversity.nl

Objective(s)

To clearly set out the neural organisation of action in the broad sense of the word: from spinal cord to cerebral cortex and from the locomotor system to emotion and social action.

Key words

Functional neuroanatomy, development of the brain, plasticitity, the motor system and executive functions, basal ganglia, frontal cortex, limbic system, emotion, social cognition and Parkinson's disease.

Course description

People move and act for a reason. Action therefore involves more than just the regulation of the motor system. However, the effective and efficient generation of action can be regarded as the most important function of the brain. Observation is primarily useful in the light of what the individual does with this information. The neural organisation of motor activity, cognitive action and social and emotional activity, in short the 'output' from the brain, forms the core of the course. The planning, programming and implementation of targeted behaviour is key. General organisation principles will be discussed on the basis of development, particularly the development of the visual system. In addition to the neural organisation of motor activity, the underlying structure for social-emotional activity will be discussed and the connection between classical limbic structures and prefrontal and temporal cortex areas. Parallels between motor activity and cognitive action will be clarified on the basis of research with patients with Parkinson's disease or prefrontal brain damage. Mirror neurons have been found to be important for both the performance of targeted behaviour oneself and for an understanding of the same behaviour in someone else, which can also underlie social interaction and empathy. The final theme is neural plasticity, both during development and in adulthood.

At the end of the course, students will be expected to have attained a knowledge of and an insight into:

- functional neuroanatomy. This involves the organisation of the most important neural circuits from spinal cord to neocortex, which underlie action (motor and executive functions), motivation, emotion and social cognition;
- the development of the brain and mechanisms and functions of plasticity during development and in adulthood;
- forms of encoding in the motor cortical areas and the difference with encoding in the sensory (visual) cortex;
- the planning, initiation, implementation and inhibition of arbitrary movements.

Literature

An e-reader has been put together. Students are recommended to buy one of the following books:

- Gazzaniga, M.S., Ivry, R.B., & Mangun, G.R. (2008). Cognitive neuroscience: The biology of the mind (3rd ed.). New York: Norton;
- Bear, M.F., Connors, B.W., & Paradiso, M.A. (2006). Neuroscience: Exploring the brain (3rd ed.). Philadelphia: Lippincott, Williams & Wilkins;

PSY3101 Practical: Neuroanatomy

Coordinator: Wijnand Raaijmakers, Cognitive Neuroscience, tel. 38 81880, Universiteitssingel 40, East, room 4.777a, e-mail: w.raaijmakers@maastrichtuniversity.nl

The most important objectives for the practical are for students to familiarise themselves with the terminology used in neuroanatomy and to gain an understanding of the spatial and functional organisation of the brain. The four practical meetings are an ideal way to do this: dissecting structures in sheep's brains (Practicals 1 and 2), using the microscope to study sections of rat brains (Practical 3) and a practical with more or less dissected, plastinated, human brains (Practical 4). By starting with the three-dimensional, macroscopic organisation of the brain (visible with the naked eye) and then proceeding to the more two-dimensional, microscopic organisation, students learn to interpret brain sections and MRI scans of the human brain. Assignments will be issued, which students will be able to complete using brain models, atlases and textbooks. Websites will be used too and the Brain Tutor (Brain Voyager), which will familiarise students with the three-dimensional organisation of the brains. The practical will conclude with a report.

Teaching method

Tutorial group meetings, formal lectures, tutorial and practicals.

Assessment method

The course examination will consist of six open questions.

PSY3006 Biological Psychology: Research Methods – 5 credits

Coordinator: Rainer Goebel, Cognitive Neuroscience, tel. 38 84014, Universiteitssingel 40, East, room 4.753,
e-mail: r.goebel@maastrichtuniversity.nl

Objective(s)

In this course, students will familiarise themselves with the most important research methods for biological psychology. Students will always look at exactly what is being measured and what this enables us to learn about how the brain works. To be able to distinguish between the various methods better, an overview of research methods will be put together. Besides this, a classification scheme will be developed, which will make it possible to compare the various methods. It will become clear that each method has its strengths and weaknesses, but that each of them has something to contribute to the scientific process. Students will also discuss the possibility of combining different research methods.

Key words

Cognitive Neuroscience, neuropsychology, fMRI, EEG, MEG, PET, TMS, pscychopharmacology and brain damage.

Course description

Biological psychology is the field of psychology that focuses on studying the biological basis of behaviour. This field has led to important progress in relation to the understanding of brain processes that underlie cognitive functions such as perception, attention, language, memory and the motor system. This progress was made possible solely by the application of a number of different research methods. The aim of this course is for students to gain a basic knowledge of all of the important methods that are used in biological psychology, including animal research, electroencephalography and magnetoencephalography (EEG/MEG), Positron Emission Tomography (PET), functional Magnetic Resonance Imaging (fMRI), neuropsychological research into patients with brain damage, Transcranial Magnetic Stimulation (TMS) and psychopharmacological research. Each method yields a different insight into the biological basis of behaviour and has its own unique strengths and weaknesses. Each week, you will learn about the principles and selected application of one or two research methods. In the last week, we will compare the different methods and discuss ways of integrating the complementary information obtained from research at different spatio-temporal levels. The methodological knowledge gained is relevant for both fundamental psychological research and for clinical applications.

Literature

- Gazzaniga, M.S., Ivry, R.B., & Mangun, G.R. (2008). Cognitive neuroscience: The biology of the mind (3rd ed.). New York: Norton;
- Rains, G.D. (2002). Principles of human neuropsychology. Boston: McGraw Hill.

PSY3102 Practical: fMRI Data Analysis with BrainVoyager

Coordinator: Giancarlo Valente, Cognitive Neuroscience, tel. 38 82469, Universiteitssingel 40, East, room 4.747,
e-mail: giancarlo.valente@maastrichtuniversity.nl

Standard analysis of a sensory/cognitive experiment aided by a specific software package (BrainVoyager). After a joint demonstration of the program in the Computer Resource Centre, you will set to work with a dataset straight away. The practical will conclude with a report on the steps that you took during the data analysis.

Teaching method

Tutorial group meetings, lectures and practicals.

Assessment method

The examination will consist of a number of open questions.

PSY3007 Biological Psychology: Theoretical Perspectives – 5 credits

Coordinator: Leo Blomert, Cognitive Neuroscience, tel. 38 81949, Universiteitssingel 40, East, room 4.748,
e-mail: l.blomert@maastrichtuniversity.nl

Objective(s)

What is theory development and how does it work? Attention will focus on gaining an understanding of the nature of psychological or neurocognitive theories. What is more, a great deal of importance will be attached to the interaction between theory and experiment and the interpretation of experimental results for the purpose of theory development. This approach will also be key to the corresponding practical in the form of theoretical presentations and discussions between small groups of students.

Key words

Neurocognitive theory development, competing theories and the meaning of experimental results.

Course description

This course will focus on theories on cognitive functions from a neurobiological perspective, with the explicit intention of visualising how brain functions lead to cognition. This research area is of an interdisciplinary nature and uses concepts from the neuro-, cognitive and computer sciences. As such, the development of theories in the cognitive neurosciences can best be described as a dynamic interaction between different sources of knowledge. In this way, a bridge is built between the neural and functional architecture of cognition. The revolutionary development of new neuroimaging methods in the last decade of the last century has contributed to this hugely. These methods are now vital for the testing and limitation of new models of brain and cognitive functions.

Special attention will focus on the 'how and what' of information-processing processes, as conceptualised in different models and theories. This theoretical evaluation is illustrated with a discussion of the dominant and often conflicting theoretical perspectives for different cognitive functions, such as language and attention, consciousness, but also multi-modal information processing. Knowledge of these theoretical perspectives forms the basis for the different master's tracks: the study of the development of cognitive functions (biological developmental psychology); the study of cognitive dysfunctions (neuropsychology) and the fundamental study of the connection between the brain and cognition (cognitive neuroscience).

Literature

An e-reader has been put together.

PSY3103 Practical: Theory Presentation

Coordinator: Leo Blomert, Cognitive Neuroscience, tel. 38 81949, Universiteitssingel 40, East, room 4.748,
e-mail: l.blomert@maastrichtuniversity.nl

The evaluation of theories from a meta-theoretical perspective. Competing theories for the same phenomenon will be compared. Pairs will be formed within the tutorial group. Each pair will choose a substantive theme; one student from the pair will defend theory one in a short presentation, while the other student will do the same for theory two. Although students will be issued with literature for each theme, they will also be expected to add other literature to this themselves. This practical will conclude with an oral presentation lasting 10-15 minutes, followed by a discussion in the group.

Teaching method

Tutorial group meetings, lectures and practical meeting.

Assessment method

The examination will consist of a number of open questions.

PSY3008 Statistics III – 6 credits

Coordinator: Gerard van Breukelen, Faculty Office, tel. 38 84001, Universiteitssingel 5, room 1.023 (Mondays, Wednesdays and Fridays) or the Methodology and Statistics Department, tel. 38 82274, Debyeplein 1, room B2.03 (Tuesdays and Thursdays), e-mail: gerard.vbreukelen@stat.unimaas.nl

Objective(s)

This course has two objectives. On the one hand, it will build on Statistics II, namely the analysis of factorial designs with a dichotomous instead of quantitative dependant variable. On the other hand, emphasis will be placed on the analysis of tests and questionnaires. As such, this course will provide students with prior knowledge for the psychodiagnostics course.

Key words

Logistic regression, classical psychometry, modern psychometry and factor analysis.

Course description

The course covers three techniques, each of which will take up approximately two course weeks: logistic regression, the reliability analysis and factor analysis.

Logistic regression is the equivalent of the variance and regression analyses discussed in Statistics II, where the dependent variable is dichotomous rather than continuous (such as being cured of an illness or passing an exam). Logistic regression can be used to correct the effects of a number of independent variables in relation to each other (confounding) and study interactions. In this way, it also forms an extension of the contingency table analysis from Statistics I into a number of independent variables.

The reliability analysis is a classical psychometric method for the analysis of tests and questionnaires. Often, the answers that people give to multiple choice questions (items) are scored logically and are added up to achieve a total score for intelligence or attitude, for example. In this situation, it is assumed that these items measure the same characteristic. A reliability analysis can be used to ascertain whether each item fits in the scale and how reliable the total score is. The course provides students with training in classical psychometry, and introduces students to modern psychometry (the Rasch model). Besides this, consideration will also be given to the question of validity and conformity between assessors.

Factor analysis is a method that is used to reduce a variety of variables into a small number of underlying factors. In the past, factor analysis was used to reduce scores for different tests into a small number of dimensions, such as verbal and spatial intelligence, or extraversion and neuroticism. Today, factor analysis is more likely to be used for the classification of items within one questionnaire into subscales. As such, factor analysis is linked to psychometry. The course offers students training in explorative factor analysis using SPSS and an introduction to confirmative factor analysis (LISREL).

Literature

- The chapter about contingency tables in the following book: Moore, D.S., McCabe, G.P. & Craig, B. (2007). Introduction to the practice of statistics (6th ed.). New York: Freeman and Company;
- For logistic regression: Tan, F. (2000). *Logistische regressie analyse*. In M. Berger, Tj. Imbos & M. Janssen (Eds.), *Methodologie en Statistiek deel II* (Chapter 14 + Annex 3). Maastricht: Universitaire Pers Maastricht;
- For classical psychometry: Van Breukelen, G., & Candel, M. (2000). *Betrouwbaarheid, validiteit en overeenstemming*. In M. Berger, Tj. Imbos & M. Janssen (Eds.), *Methodologie en Statistiek deel II* (Chapter 16 + Annexes 2 and 4). Maastricht: Universitaire Pers Maastricht;
- For modern psychometry: Crocker, L., & Algina, J. (1986). Introduction to classical and modern test theory. Orlando: Harcourt Brace Javonovich College – Publishers (Chapter 15);
- For factor analysis: Van Breukelen, G. (2000). *Factoranalyse*. In M. Berger, Tj. Imbos & M. Janssen (Eds.), *Methodologie en Statistiek deel II* (Chapter 17). Maastricht: Universitaire Pers Maastricht.

PSY3201 Practical: SPSS

Coordinator: Gerard van Breukelen, Faculty Office, tel. 38 84001, Universiteitssingel 5, room 1.023 (Mondays, Wednesdays and Fridays) or the Methodology and Statistics Department, tel. 38 82274, Debyeplein 1, room B2.03 (Tuesdays and Thursdays), e-mail: gerard.vbreukelen@stat.unimaas.nl

There will be four practicals, one for each of the different components: contingency tables, logistic regression, classical psychometry and factor analysis. In these sessions, students will practise the statistical technique in question on real or realistic data. The assignments for the SPSS analyses can be found in the course book. The SPSS output will be discussed in the tutorial group. In preparation for the practical meeting, students will be expected to study the theory in question (see the handout for the formal lecture and the compulsory literature). In preparation for the tutorial group in which the SPSS output will be discussed, students will be required to answer the questions in the course book about this SPSS

output. Time permitting, students will be expected to do this during the practical itself.

Teaching method
Tutorial group meetings, lectures, practicals and question and answer lectures.

Assessment method
The examination will consist of 18 multiple choice questions, each of which will have three possible answers. This is an open book examination, but students will not be allowed to use past papers while doing this examination.

PSY3009 Psychodiagnostics – 6 credits

Coordinator: Anton de Vries, Cognitive Neuroscience, tel. 38 84043, Universiteitssingel 5, room 1.025,
e-mail: a.devries@maastrichtuniversity.nl

Objective(s)

To gain an insight into the principles of psychodiagnostics.

Key words

Reliability, validity, normalisation, bias, diagnostic cycle, Bayesian statistics and ethical professional code.

Course description

The aim of this course is to provide students with an understanding of the theoretical principles underlying psychodiagnostic research. The following will be discussed: the importance of instrumental qualities for the interpretation of diagnostic data, the decision-making aspects of psychodiagnostics and the ethical conditions formulated in the NIP professional code.

Illustrated on the basis of a number of practical problems, the importance of characteristics such as reliability, validity, normalisation, instrument type (interviews, surveys, assessment charts and tests) and sources of bias for the interpretation of diagnostic results will be discussed in the initial tasks. Next, diagnostics as a decision-making process will be discussed. Shortcomings in decisions as a result of the use of cognitive heuristics will be placed in the light of the old controversy between clinical and statistical prediction. The diagnostic process is regarded as a cycle that is closely linked to the empirical cycle. The application of Bayesian statistics to diagnostics will be discussed too. Finally, students will familiarise themselves with the ethical professional code formulated by the NIP. Although subject matter will be explained on the basis of examples from clinical practice, this course seeks to develop further the understanding that students have of the principles of measurement in psychology.

PSY3202 Practical: Test Assessment and Data Processing

Coordinator: Anton de Vries, Cognitive Neuroscience, tel. 38 84043, Universiteitssingel 5, room 1.025,
e-mail: a.devries@maastrichtuniversity.nl

The practical will consist of a series of assignments, which will run parallel to the tasks. In these assignments, students will apply the knowledge that they have attained as part of statistics education. They will be asked to apply the theory from the various tasks to a fictional dataset. In this way, students will gain experience with reliability analysis, item analysis, validation research, normalisation research and decision-making analysis.

Literature

An e-reader has been put together.

Teaching method

Tutorial group meetings and formal lectures.

Assessment method

The examination will consist of a number of open questions.

NB: Students will not automatically be awarded the basic endorsement for NIP psychodiagnostics by passing this course. Additional requirements apply.

PSY3010 Bachelor's Thesis – 6 credits

Coordinator: Remco Havermans, Experimental Clinical Psychology, tel. 38 84053, Universiteitssingel 40, East, room 3.735,
e-mail: r.havermans@maastrichtuniversity.nl

Objective(s)

To write a detailed academic research report (whether in relation to a literature search or an empirical study) on an academic subject that is relevant to psychology.

Key words

Writing instruction, bachelor's thesis and academic research.

Course description

To conclude the bachelor's stage, students will be expected to write a bachelor's thesis. This is an article in which students report on a literature search or an empirical study (an experiment, for example). When writing an empirical research report, students will need to have access to research data (this must be looked at in consultation with a supervisor). In all cases, students must outline a clear background/problem situation for the subject chosen, based on relevant and recent scientific literature, and develop this into a clear problem definition. Students will then be expected to answer this question in the thesis, in line with the current rules that apply to works of this nature. To familiarise themselves with these rules, students and staff at the Faculty of Psychology and Neuroscience are able to approach the 'FPN Bachelor's thesis' organisation within EleUM, which will provide individuals with all of the information they will need for the bachelor's thesis. Students will be responsible for selecting a suitable subject and for finding/approaching a supervisor. Students must start to prepare for the bachelor's thesis well in advance (ideally, at the beginning of the third year). However, students will only be allowed to start working on the bachelor's thesis when a request form (including the plan for the bachelor's thesis and the supervisor's signature) has been submitted to the Education Office on time for the deadline applicable. See My Organizations > FPN Bachelorthese in EleUM for all of the information that you will need on procedures and deadlines, academic requirements and guidelines.

PSY3203 Practical: EndNote

Coordinator: Henriëtta Hazen, University Library, tel. 38 85125, Universiteitssingel 50, flexible work station, e-mail: h.hazen@maastrichtuniversity.nl

During the second course period of year 3, students will also attend the EndNote course, attendance of which is compulsory. This practical will focus on use of the EndNote database to create your own literature file and an essay/document (in Word or WP) or to add quotations and a bibliography in line with the layout style required.

Assessment method

The supervisor will assess the form and content of the final version of the bachelor's thesis on the basis of a checklist and a pre-printed assessment form. One copy of the latest, final version of the bachelor's thesis (in which all of the additions and comments made by the supervisor have been incorporated) must be sent to the supervisor for assessment by 15 June at the latest and one copy e-mailed as an electronic attachment to fdp-bachelorthese@maastrichtuniversity.nl (see EleUM > My Organizations > FPN Bachelorthese for more detailed information).

3.2.3 Electives

In the third year, students are able to do a number of electives. Electives give students the opportunity to both broaden their programme and to specialise more. Electives will not necessarily be limited to periods 4 and 5 of year 3. Students may do electives at their own discretion, both within their own faculty and at other faculties within Maastricht University or at other universities and research institutions in the Netherlands and abroad. This year is the first time that students will also be able to do electives that involve their participation in a minor at another faculty or by implementing a research project in the framework of Marble, Maastricht Research Based Learning. The idea of Marble is for students to be able – further to the research practical – to take part in a research project led by a scientist from our faculty, or another faculty, in the fifth or sixth semester of the bachelor's programme. This research could then also serve as the basis for an empirical bachelor's thesis.

More information about Marble and minor education will be made available via the website and EleUM. If a student wishes to do (parts of) the elective component outside his own faculty, this will require the permission of the Board of Examiners.

This permission can be requested by completing the 'Application for Electives' form, which is available online and can be found at EleUM > Students Faculty of Psychology and Neuroscience > Forms. For questions about grants for studying at a foreign educational institution, students can contact the International Relations Office (IRO) (tel. 38 81920, Universiteitssingel 40, East, room 1.768), e-mail: international-fpn@maastrichtuniversity.nl).

Electives programme at the Faculty of Psychology and Neuroscience
Electives Coordinator: Rob Ruiter, Work and Social Psychology, tel. 38 82413, Universiteitssingel 5, room 3.023, e-mail: r.ruiter@maastrichtuniversity.nl

In periods 4 and 5 of year 3, elective courses will be offered by staff at the Faculty of Psychology and Neuroscience. Students will register for elective courses in period 2 of the third academic year. Incidentally, students are also able to suggest their own subject as a theme for an individual elective course, provided that they are able to find lecturers who are willing to supervise them and provided that students are given permission to do so by the Board of Examiners (see the guide to higher education).

The teaching method used within the elective courses deviates from traditional Problem-Based Learning. Different forms of activity are possible. For example, a seminar in which students report on the way in which they have given shape to the subject chosen, reading groups in which students study an important work on the elective subject together, or a joint trip or workshop.

The elective course subjects are suggested by lecturers. A brief description of each subject will be included in the electives handbook: 'Electives Year 3, 2010/2011'. Information will also be provided on the teaching method used.

The electives available are determined on an annual basis. This means that courses will vary from one year to another. Because of this, students must make sure that they pass each elective course in the year in which it is attended. Where they are unable to do this and the course is actually offered in the following year, the student will be expected to re-register for the course. However, there is no guarantee that the student will be accepted for the course in question again. All elective courses will, in principle, be delivered in English. Where no foreign students have registered, the coordinator will be responsible for deciding whether meetings will take place in Dutch or English. If less than six students register for an elective course, the course coordinator may decide to cancel the course or to offer it on an individual basis.

Students are requested to give careful consideration to the way in which they wish to formulate their electives. This relates in particular to the organisation of the electives programme where students wish to do part of their study at other faculties or institutions. Periods of teaching elsewhere often do not coincide with course periods here. Students will be expected to obtain information about this and related matters, such as the registration procedure, number of credits, etc. themselves.

The elective guide for 2010-2011, which will contain details of the electives decided on and the programming applicable for these courses, will be available in October 2010.