Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

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First year courses

Research Master Specialisation Psychopathology Year 1

Faculty of Psychology and Neuroscience

Anxiety Disorders

Full course description

This course covers the main findings and controversies related to anxiety disorders. Both new treatment issues are dealt with as well as psychological mechanisms that are involved in the origin and maintenance of the various anxiety disorders.

In industrialised countries (USA, Canada and Western Europe), anxiety disorders are the largest group of mental disorders for which patients are referred, and without appropriate treatment the natural course is often chronic. Luckily, anxiety disorders are relatively well studied and understood, and the outcome of treatment is relatively favourable. Students will first learn what the features of normal and pathological anxiety are. As regards the aetiology of anxiety disorders, the focus will be on the role of social (life events), biological, conditioning and information processing factors. With regard to the maintenance of the disorders, the course concentrates first of all on the cognitive-behavioral model of anxiety disorder. On one hand students will study the cognitive maintaining mechanisms such as selective processing as it relates to perception, attention, memory, and interpretation behavior. On the other hand, students study the maintaining role of 'safety behaviours', which are attempts to prevent a feared catastrophe, with the ironic effect that anxiety is reinforced. Moreover the role of imagery and worry in anxiety disorders is studied. With regard to treatment studies will be updated about recent insights of the working mechanisms of exposure and are thought the basics of current 'state-of-the-art' exposure. As to biological factors, cognitive enhancers are studied that in future might help to speed up treatment processes.

Course objectives

Knowledge of: Current theories of anxiety disorders, normal-abnormal anxiety distinction, classification of anxiety disorders, maintenance processes of anxiety disorders, current treatment approaches.

PSY4511
Period 1
4 Sep 2017
29 Sep 2017
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinator:

Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

- [M.J. Voncken](#)

Teaching methods:
Lecture(s), Presentation(s), Work in subgroups, PBL
Assessment methods:
Attendance, Final paper
Keywords:
anxiety, Anxiety disorders, phobia, panic disorder, agoraphobia, social anxiety disorder, obsessive compulsive disorder
Faculty of Psychology and Neuroscience

Mood Disorders

Full course description

This course is intended to give the student an overview of current concepts and research in the field of mood disorders. During the course, fundamental aspects of onset and course of the most important mood disorders (major depression, bipolar disorder and dysthymia) will be addressed. Over the last couple of decades, it has become increasingly clear that mood disorders are chronic psychiatric disorders characterised by acute episodes, relapses, recurrences and residual symptomatology. Both onset and course of mood disorders are the result of complex interactions between distal (e.g. genetic and developmental) and proximal (e.g. severe life events) risk factors. This is illustrated by discussion of mood disorders across the life span in the light of biological, psychological and social approaches. Current research strategies aimed at clarifying the role of these different aspects will be the central theme throughout the course. Based on this framework, state-of-the-art treatments for mood disorders are addressed and illustrated where possible.

Course objectives

Knowledge of: Epidemiology, etiology of mood disorders, course, treatment, major depression, bipolar disorder, dysthymia, diagnostic issues, kindling, scar, personality, genes, immunesystem, environment, gene-environment interaction, efficacy, effectiveness, cognitive behavioural therapy, interpersonal therapy, electroconvulsive therapy, gender, life stressors.

PSY4512
Period 1
12 Oct 2017
10 Nov 2017
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- [F.P.M.L. Peeters](#)

Teaching methods:
Assignment(s), Lecture(s), Presentation(s), Work in subgroups, PBL
Assessment methods:
Attendance, Final paper, Presentation

Advanced Statistics I

Full course description

The course consists of six units. In the first four units, participants will be given an in-depth training in the following standard statistical methods: factorial ANOVA for between-subject designs, analysis of covariance (ANCOVA), multivariate ANOVA (MANOVA), discriminant analysis and multiple linear regression. Students are assumed to have background knowledge of balanced two-way factorial ANOVA and multiplere regression. These methods will be briefly reviewed. The following advanced topics will then be covered: unbalanced factorial designs, contrast analysis, interaction, simple slope analysis, dummy coding, centring covariates, different coding schemes, collinearity and residuals checks and data transformation. The distinction between confounders and mediators in regression and ANCOVA is also discussed, forming a bridge from regression to structural equations modelling (SEM). The latter is an advanced multivariate method that is gaining importance in psychology but still requires special software (such as Lisrel, EQS, AMOS or Mplus). SEM is introduced in two units, starting with causal modelling and mediation analysis in cross-sectional research and then extending to longitudinal research and latent variables (factors). Special attention is given to identifying models, model equivalence, global and local goodness of fit indices, parsimony, model modification and cross-validation. Some concepts from matrix algebra are needed for SEM, and these will be briefly discussed without going into technical detail.

Course objectives

Knowledge of: Oneway analysis of variance, contrast analysis, unbalanced designs, multivariate analysis of variance, discriminant analysis, linear regression with interaction terms, linear regression with dummy variables, data transformations, simple slope analysis, analysis of covariance, path analysis, structural equation modeling, confirmatory factor analysis, structural models with latent variables.

PSY4106
Period 1
4 Sep 2017
22 Dec 2017
[Print course description](#)
ECTS credits:
3.0
Instruction language:
English
Coordinator:

- [J. Schepers](#)

Teaching methods:
Assignment(s), Lecture(s), Skills, Training(s)
Assessment methods:
Attendance, Written exam

Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

Keywords:
Univariate analysis of variance, multivariatie analysis of variance, regression analysis, structural equation modeling
Faculty of Psychology and Neuroscience

Practical Training: SPSS I and Lisrel

Full course description

In order to make practical use of the statistical models that form the topic of the Advanced Statistics course, researchers must make use of statistical software. This course will utilise the traditional SPSS program, but also the specialised LISREL software. LISREL is a statistical program that allows structural equations models to be tested.

Course objectives

Knowledge of: Defining contrasts, building regression models, doing multivariate analyses, transforming data, testing simple slopes, creating and testing SEM models.

PSY4119
Period 1
4 Sep 2017
22 Dec 2017
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- J. Schepers

Teaching methods:
Assignment(s), Training(s)
Assessment methods:
Attendance
Keywords:
SPSS, LISREL, statistical software
Faculty of Psychology and Neuroscience

Scientific Writing

Full course description

The course is delivered in a series of one lecture and four tutorials, during which students produce and revise a short research proposal, literature research paper or research article. The lecture aims to cover the structure of the three genres, and ethical issues surrounding the production of scientific texts (for example, plagiarism and non-biased writing). In tutorials, students apply principles in the linguistic sense and discover how these apply to their own writing. In particular, the 'doors and

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windows' (abstracts, introductions, hypotheses and discussions) of scientific papers are analysed for their linguistic and stylistic content. Furthermore, students develop the language awareness and critical skills required to review their own work as well as that of their peers. Individual feedback on parallel block assignments is given at the end of the course by the instructor.

Course objectives

Knowledge of: Principles of scientific writing, conventions in scientific writing, the structure of scientific texts, ethics in scientific writing, plagiarism, editing skills, language in scientific writing, academic writing style, coherence in scientific writing, reporting sources.

PSY4113
Period 1
4 Sep 2017
27 Oct 2017
[Print course description](#)
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- [P.P.C. Wilms van Kersbergen](#)

Teaching methods:
Assignment(s), Lecture(s), Paper(s), Research, Skills, Training(s), Work in subgroups
Assessment methods:
Attendance, Final paper
Keywords:
Scientific writing, Research proposal, empirical research article, literature review, peer review, language awareness
Faculty of Psychology and Neuroscience

Research Practical Psychometrics

Full course description

This skills training provides a thorough overview of the basic principles of psychological measurement (i.e., psychometrics). Topics that are covered include classical test theory, reliability analysis (e.g., test-retest, parallel forms, split-half, Cronbach's alpha), validity (e.g., content, criterion, construct), principal component analysis, factor analysis (exploratory and confirmatory), and item response theory. SPSS and LISREL will be used for the analyses.

Course objectives

Knowledge of: the classical test theory (CTT) model; methods for estimating the reliability of measurements based on the CTT; various types of validity (content, criterion, and construct validity); how to use the Spearman-Brown equation; how to use the correction for attenuation and range restriction; how to apply and interpret the results of a principal component and exploratory factor analysis; how to apply and interpret the results of a confirmatory factor analysis; basic principles of

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item response theory (IRT).

PSY4531
Period 1
2 Oct 2017
20 Oct 2017
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [W. Viechtbauer](#)

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Skills, Training(s)
Assessment methods:
Attendance, Final paper
Keywords:
Psychometrics, reliability, validity, factor analysis, item response theory
Faculty of Psychology and Neuroscience

Clinical Skills I: Interviewing Skills

Full course description

The aim of this skills training is to teach students basic clinical interview skills needed for interviewing patients suffering from psychopathology. After this course, students will be able to administer semi-structured interviews covering the reason for referral, chief complaint, history of the presented problem(s), mental status and the developmental and social assessment and diagnoses (DSM-IV-R, DSM V). Students should be able to diagnose the presented problem(s) and to suggest the type of treatment required.

Course objectives

Knowledge of: Classification of disorders according to DSM manual; clinical assessment, interviewing skills, psychopathology, administering semi-structured interviews.

PSY4532
Period 1
4 Sep 2017
27 Oct 2017
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [A.A.N. Mulkens](#)

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Teaching methods:
Lecture(s), Paper(s), Patientcontact, Skills, Training(s)
Assessment methods:
Attendance, Final paper, Observation
Keywords:
interviewing skills, Psychopathology, assessment
Faculty of Psychology and Neuroscience

Clinical Assessment Instruments

Full course description

Parallel to the core courses throughout year 1, this series of skills training sessions introduces students to the range of rating scales, questionnaires, interview and observational instruments most commonly used in clinical practice and research. The first session will provide an overview of the classes of available instruments and their applications in clinical and research contexts. Later sessions will focus on instruments designed to assess specific symptoms and the severity of the disorders that are covered in the associated core course. The last sessions will focus on a subset of broader measures of personality, psychopathology and adjustment (e.g., quality of life, social adjustment or coping scales) and on the reliability and social impact of psychiatric diagnosis. Working with case materials, students will learn how to choose appropriate assessment instruments for clarifying individual diagnoses, planning interventions and monitoring their effects. These skills training sessions will provide students with basic background information and hands-on experience in the use of valid and reliable instruments for assessing psychopathology.

Course objectives

Knowledge of: Available research and clinical instruments for assessing psychopathology; state and trait measures; retrospective measures; projective methods; evaluating validity and reliability of assessment methods; self-report, clinician-rated and informant-rated measures; ethical issues in data collection, analysis and reporting; sources of bias and measurement error; presentation and interpretation of test results in research and clinical practice; continuous vs. categorical measures (symptoms vs. diagnoses); assessing clinical change; broad vs. specific measures; instruments designed or adapted for special populations (e.g., children, different cultures, cognitive impairment).

PSY4534
Period 1
2 Oct 2017
18 Jun 2018
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [B.P.F. Rutten](#)

Teaching methods:
Lecture(s), Skills, Training(s), Work in subgroups

Assessment methods:
Assignment, Attendance
Keywords:
questionnaires, interviews, observational measures, clinical evaluation, reliability, validity,
Psychodiagnostics, treatment response, stigma
Faculty of Psychology and Neuroscience

Stress and Trauma

Full course description

This course is designed to give students an in-depth overview of key concepts and controversies in current stress research, with an emphasis on the role stress is thought to play in the aetiology, pathophysiology and course of psychiatric disorders over the lifespan. The first half of the course will focus on the interrelationship of biological and psychological processes in healthy adaptation as well as in psychopathology. In the second half, this detailed knowledge about how individuals respond to and cope with various forms of stress will be applied in order to understand aspects of posttraumatic stress disorder (PTSD): epidemiology, risk and protective factors, prevention, and evidence-based treatment options.

Throughout the course, attention will be paid to how current theories about stress and trauma can be translated into testable hypotheses and feasible research designs. In addition, the generalisability and clinical relevance of findings from experimental stress exposure paradigms and studies in animal models will be considered.

Course objectives

Knowledge of: Conceptualisation and measurement of stress, appraisal and coping processes, sympathetic-adrenal medullary system, hypothalamic-pituitary-adrenal axis, stress neurobiology, experimental stress paradigms, long-term effects of prenatal stress and childhood adversity, gene-environment interactions, environmental sensitivity, epidemiology of trauma exposure, risk and protective factors, social support, resilience, diagnostic criteria, burnout, acute stress disorder, posttraumatic stress disorder, cognitive mechanisms, biological mechanisms, prevention, clinical trials, treatment approaches (rationale and efficacy), barriers to translating research into clinical practice, ethical issues in stress research.

Skills: Designing a study, writing a research proposal, giving a brief empirical presentation, teamwork during small group assignments .

PSY4513
Period 2
20 Nov 2017
15 Dec 2017
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- [T. Smeets](#)

Teaching methods:
Assignment(s), Lecture(s), Paper(s), PBL, Presentation(s), Work in subgroups
Assessment methods:
Attendance, Assignment, Final paper, Presentation
Keywords:
stress, childhood adversity, life events, psychoneuroendocrinology, posttraumatic stress disorder
Faculty of Psychology and Neuroscience

Clinical Skills II: Diagnostic Test Procedures

Full course description

Students will learn to conduct a psychodiagnostic interview with adult clients with psychiatric diagnoses and caregivers of children with developmental problems. Students will also extend their experience in neuropsychological test administration and observation. They will acquire skills in writing a formal report and in communicating their conclusions to the patient.

Following an introduction to the main cognitive domains in relation to brain areas and relevant neuropsychological and psychopathological test procedures, the skills training will focus on five disorders: developmental disorders (including disorders of executive functioning and disorders of learning and attention); schizophrenia; bipolar disorder; depression; and personality functioning. These conditions will be discussed in relation to the principles of assessment of psychopathology and neuropsychology outlined in the first session. Students will practice their interviewing skills in real client interviews. In addition, students will be trained in neuropsychological history taking and test administration.

Course objectives

Knowledge of: The procedures for psychodiagnostics and neuropsychological testing that are needed for assessing type, severity, and extent of psychopathology and neuropsychological problems in individuals with psychiatric disorders.

PSY4533
Period 2
30 Oct 2017
22 Dec 2017
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [M.J.H. Lardinois](#)

Teaching methods:
Lecture(s), Patientcontact
Assessment methods:
Attendance, Final paper

Keywords:
clinical skills training, psychodiagnostic and neuropsychological testing, interview techniques, test administration
Faculty of Psychology and Neuroscience

Bodily Distress Disorders

Full course description

Why do a relatively large number of individuals complain about longstanding bodily complaints, and continue to seek medical care despite the absence of a medical cause of their complaints? This course focuses on the mental representations of bodily symptoms, and their effects on observable behaviours, which can be quite disabling. Interestingly, a shift in scientific focus has occurred in the last decade from stable individual traits towards more dynamic transdiagnostic psychological processes. The emphasis of this course is on the cognitive and behavioural mechanisms (e.g. conditioning, reasoning, attention, avoidance) that play a role in the aetiology and maintenance of chronic pain, shortness of breath (dyspnea), ringing in the ears, and fear of serious illnesses. Evidence-based cognitive-behavioural interventions are discussed. Because of its prototypical character, the problem of chronic pain and pain disorder will be the main focus of this course.

The course starts with three introductory sessions during which a modern approach of bodily distress disorders is presented. In each of the four subsequent 'meet-the-expert' sessions, a lecturer specialised in a particular disorder from a collaborating university lab is invited, and students will be given the opportunity to actively interact with the experts. If possible, a visit to one of the experts' labs will be organised. Usually, this is the lab of the research group Health Psychology at the University of Leuven (Belgium). The course ends with an interactive mini-symposium during which students present their research paper.

Course objectives

Knowledge of: Theoretical approaches of symptom perception and body appearance concerns, catastrophic (mis)interpretations of bodily symptoms, congenital insensitivity to pain, gate-control theory of pain, sensory-discriminative and affective dimension of interception, neural correlates of pain, pain matrix, descending modulation, theories of health anxiety, fear-avoidance model of pain, interoceptive conditioning, safety behaviours, attentional processes, stress, coping and acceptance, communal coping model, self-consciousness, self-discrepancies, air hunger, differences and communalities between pain and dyspnea, experimental pain and dyspnea induction methods, cognitive-behavioural treatment for bodily distress disorders, exposure.

PSY4521
Period 3
8 Jan 2018
2 Feb 2018
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinators:

Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

- [J.W.S. Vlaeyen](#)
- M.M. Hanssen

Teaching methods:
Lecture(s), PBL, Presentation(s), Working visit(s), Work in subgroups
Assessment methods:
Attendance, Final paper, Presentation
Keywords:
bodily complaints, chronic pain, dyspnea, health anxiety
Faculty of Psychology and Neuroscience

Neuroanatomy

Full course description

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

Course objectives

Knowledge of: Limbic system, basal ganglia, plastinated human brains, brain dissection, microscopical slices.

PSY4108
Period 3
8 Jan 2018
2 Feb 2018
[Print course description](#)
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- [J.H.H.J. Prickaerts](#)

Teaching methods:
Lecture(s), Skills, Work in subgroups
Assessment methods:
Attendance, Written exam
Keywords:
Neuroanatomy, limbic system, basal ganglia
Faculty of Psychology and Neuroscience

Colloquia

Full course description

Each specialisation organizes maximally two colloquia, in which senior researchers from Maastricht University or visiting lecturers present their scientific insights. Each colloquium focuses in depth on one of a wide range of topics, with issues transcending the courses and specialisations. Each colloquium lecture will be followed by active discussion, chaired by the lecturer or the host of the guest lecturer. A total of eleven colloquia will be offered.

Course objectives

Knowledge of: Key research domains from different specialisations, interdisciplinary research, interacting with students from different specialisations.

PSY4100
Period 3
8 Jan 2018
1 Jun 2018
[Print course description](#)
ECTS credits:
1.0
Instruction language:
English
Coordinators:

- W.J. Riedel
- [G. Valente](#)
- [S.Z. Stapert](#)

Teaching methods:
Lecture(s)
Assessment methods:
Attendance
Keywords:
interdisciplinary knowledge
Faculty of Psychology and Neuroscience

Developmental Psychopathology

Full course description

The aim of this course is to introduce students to the field of developmental psychopathology, an interdisciplinary field that employs the framework of normal development to understand psychopathology as it unfolds throughout the natural lifespan. Developmental psychopathology integrates research findings from developmental and clinical psychology, behavioural genetics, neuropsychology and psychiatry into models that explain how psychopathology develops.

The focus of this seminar will be to examine child psychopathology through the lens of

developmental psychopathology. The sessions will cover broad conceptual and methodological issues in developmental psychopathology research, as well as genetic, environmental influences and family factors in the development of psychopathology. Additional sessions will address current theory and research in specific types of childhood psychopathology, such as anxiety, depression, conduct disorders and autism. In each of these sessions findings from developmental research will be integrated with clinical studies.

Course objectives

Knowledge of: Child psychopathology, oppositional-defiant disorder, conduct disorder, antisocial personality disorder, primum non nocere, bullying, KOPP, children of parents with psychiatric problems parental rearing, Munchhausen by proxy, mental retardation, assessment, Tourette's syndrome, autism, Pica, rumination disorder, conversion disorder, childhood schizophrenia.

PSY4514
Period 4
5 Feb 2018
9 Mar 2018
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- [P.E.H.M. Muris](#)

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, PBL
Assessment methods:
Attendance, Presentation, Portfolio
Keywords:
Developmental psychopathology, child and adolescent disorders, etiology, treatment
Faculty of Psychology and Neuroscience

Eating Disorders

Full course description

Eating disorders are among the most prevalent disorders in adolescent and young adult females. Their exact aetiologies are largely unknown, although it has become evident that a range of factors influences an individual's vulnerability to eating disorders (ranging from genetic to environmental factors, like low self-esteem, dieting, body image bias, reward sensitivity and impulsivity). An initial aim of the course is to discuss influential state-of-the art theories and empirical papers about the origin or maintenance of eating disorders. The question of whether obesity is an eating disorder or not is also discussed. Secondly, special attention will be paid to experimental psychopathology research methods for testing hypotheses on the origin, maintenance and reduction of these disorders. Thirdly, the gap with clinical practice is scrutinised. What is the best treatment a patient can get? And why is it so difficult to implement the evidence-based treatments in clinical practice?

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Course objectives

Knowledge of:

1. Clinical pictures and diagnostic criteria of eating disorders and obesity, relation between dieting and overeating, beauty ideal and eating disorders, body image bias, conditioned craving and overeating, effective treatments for eating disorders, cognitive behaviour therapy;

2. A training in writing short popular scientific articles, reviewing popular science, and working through the process of revision and submission of revised work to an editor of a journal;

3. Working out a cognitive formulation and intervention for a patient with an eating disorder.

PSY4519
Period 4
12 Mar 2018
6 Apr 2018
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- A.T.M. Jansen

Teaching methods:
Assignment(s), Lecture(s), Paper(s), PBL
Assessment methods:
Participation, Assignment
Keywords:
eating disorders, obesity, body image, dieting
Faculty of Psychology and Neuroscience

Advanced Statistics II

Full course description

The course consists of seven units.

The first three units cover classical repeated measures ANOVA for the one- and two-way within-subject design and the split-plot (between x within) design. Special attention is given to: a) the choice between multivariate and univariate data formats and method of analysis, and the sphericity assumption; b) the distinction between the within-subjects and between-subjects part of a split-plot ANOVA, and how to obtain both using regression analysis; c) the surprising consequences of including covariates into repeated measures ANOVA; and d) the choice between different methods of analysis for randomised versus non-randomised group comparisons.

Subsequently, a further three units are devoted to mixed (multilevel) regression for nested designs and longitudinal studies. This mixed regression starts with a unit on marginal models for repeated measures as an alternative to repeated measures ANOVA in cases of missing data or within-subject covariates. Students are shown the pros and cons of various models for the correlational structure of

repeated measures, such as compound symmetry and AR1. The second unit covers the random intercept model for repeated measures as a method to include individual effects in marginal models for longitudinal data (growth curves) or single trial analyses of lab data (response times, ERP, fMRI). Students learn how this can be combined with e.g. ARMA modelling to distinguish between interpersonal and intrapersonal outcome variation. The random intercept model will also be applied to a cluster randomised trial, i.e. an RCT where organisations like schools or companies instead of individuals are randomised. The third and last unit on mixed regression covers random slope models for longitudinal data (individual differences in change over time), single trial analysis (individual differences in stimulus effects) and multicentre trials (RCT within each of a number of organisations).

Finally, the topic of optimal design, sample size and power calculations is introduced in a seventh unit.

Course objectives

Knowledge of: Repeated measures ANOVA for within-subject and split-plot (between x within) designs, including factorial designs and covariates in repeated measures ANOVA; Mixed (multilevel) linear regression with random effects and autocorrelation; Optimal design and sample size calculations for experimental and observational studies.

Prerequisites

Good understanding of descriptive and inferential statistics at the elementary and intermediate level, including t-tests, factorial ANOVA and multiple linear regression. Skilled in the use of SPSS for statistical data analyses.

PSY4107
Period 4
19 Feb 2018
8 Jun 2018
Print course description
ECTS credits:
3.0
Instruction language:
English
Coordinator:

- G.J.P. van Breukelen

Teaching methods:
Assignment(s), Lecture(s), Training(s)
Assessment methods:
Attendance, Written exam
Keywords:
Within-subject designs, repeated measures ANOVA, mixed (multilevel) regression, marginal versus random effects models, optimal design, sample size, power
Faculty of Psychology and Neuroscience

Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

Practical Training: SPSS II

Full course description

This practical training forms part of the PSY4107 Advanced Statistics II course. The practical consists of seven sessions in the computer rooms. In the first six sessions SPSS procedures for repeated measures and multilevel data are practised. The goal is to understand how proper analyses of such data can be done using SPSS. In the last session GPower will be used to practice sample size (power) calculations for some elementary research designs.

Course objectives

Knowledge of:

How to run with SPSS: repeated measures ANOVA for within-subject and split-plot (between x within) designs, including factorial designs and covariates;

How to run SPSS for: mixed (multilevel) linear regression with random effects and autocorrelation.

How to use GPower for sample size (power) calculations for your own research (master thesis, grant application)

Prerequisites

Good understanding of descriptive and inferential statistics at the elementary and intermediate level, including t-tests, factorial ANOVA and multiple linear regression. Skilled in the use of SPSS for statistical data analyses.

PSY4117
Period 4
19 Feb 2018
8 Jun 2018
[Print course description](#)
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- [G.J.P. van Breukelen](#)

Teaching methods:
Training(s)
Assessment methods:
Attendance
Keywords:
Within-subject designs, repeated measures ANOVA, mixed (multilevel) regression, marginal versus random effects models
Faculty of Psychology and Neuroscience

The Application of Cognitive Methods in Psychopathology Research

Full course description

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

During the course, students are given a number of introductory papers about the tasks. There are two lectures in which the various paradigms are explained and briefly demonstrated and their applications in several forms of psychopathology are discussed. An important aspect of the lectures will be a discussion of the pros and cons of the various paradigms. Students also take part in a short practical, consisting of two meetings. During these practical sessions they will (1) analyse results of an experiment with a response latency based measure of associations, and (2) experience and 'beat' the Implicit Association Test. Students will write a final assignment about the pros and cons of a paradigm of choice.

Course objectives

Knowledge of: Biased cognitive processing, analysis of response latencies, Implicit Association Test, Affective Priming Paradigm, Emotional Stroop task, implicit measures, indirect measurement procedures.

PSY4542
Period 4
5 Feb 2018
6 Apr 2018
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- K.M.P.I. Houben

Teaching methods:
Assignment(s), Lecture(s), Paper(s), Research, Skills, Training(s), Work in subgroups
Assessment methods:

Attendance, Final paper
Keywords:
cognitive psychology, response latencies, experiments
Faculty of Psychology and Neuroscience

Psychosis

Full course description

The course aims to provide the student with an overview of current thinking and unresolved issues in psychosis research. The process of psychotic disorder and psychosis transition has been the subject of intense study in the last decade. Early epidemiological approaches have been complemented with studies of cognitive mechanisms, psychopathology, neuroimaging and, finally, treatment trials. There is now evidence to suggest that the onset of psychotic disorder is the endpoint of a process of interactive aetiological forces that involve genetic background factors associated with low-grade, non-clinical expression of psychosis in the general population, environmental stressors such as cannabis use and childhood trauma and a number of cognitive vulnerabilities in the realm of neuropsychology and social cognition. In addition, it has become increasingly clear that the process of onset of psychosis is associated with neurocognitive changes and progressive sensitisation to dopaminergic stimulation, greater quantities of which may predict subsequent brain changes and poorer outcomes.

Course objectives

Knowledge of: A better understanding of psychosis, in particular its overlap with normal mentation; its ontogeny; diagnostic conundrums; linking brain mind, and environment; linking genes,experience, and social context; and how to help patients.

PSY4516
Period 5
9 Apr 2018
8 Jun 2018
[Print course description](#)
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- [U.A. Reininghaus](#)

Teaching methods:
Lecture(s), Work in subgroups, Presentation(s), Assignment(s), Paper(s)
Assessment methods:
Attendance, Final paper, Observation
Keywords:
psychosis, Diagnosis, treatment, aetiology, phenotype, research
Faculty of Psychology and Neuroscience

Human Neuroimaging

Full course description

This course aims at introducing basic knowledge and principles of functional brain imaging techniques and discussing its use and novel advances in relevant fields of clinical and cognitive research. The workshop comprises two sequential versions that are tailored to two a priori levels of background knowledge of students from the Psychopathology and Neuropsychology tracks Version 1 introduces the basic principles of neuroimaging (introduction to imaging methods, experimental design & analysis, fMRI signal, etc.) and basic applications in clinical research. Version 2 introduces a number of technical and methodological advances (multimodal imaging techniques, connectivity analyses, mental chronometry and other matters), and assumes that participants possess a priori knowledge of items discussed in version 1. Assignment to a workshop version is determined on an individual basis; participants must follow at least one version. Participants can opt to follow both versions, but will receive no extra credits. General description: The investigation of human brain anatomy and functions using a range of imaging methods represents one of the most influential development in psychology in the last few years. This workshop reviews essential facts about contemporary major structural and functional brain mapping techniques, but the focus will be on functional Magnetic Resonance Imaging (fMRI). In addition, the workshop discusses strengths and weaknesses of neuroimaging methods as instruments to study the normal and pathological brain.

Course objectives

Knowledge of:

Functional brain imaging techniques and principles, hands-on data analysis, between group experimental designs, available imaging techniques for clinically oriented research.

Prerequisites

Basic knowledge of brain anatomy, experimental design and statistics.

PSY4435
Period 5
9 Apr 2018
8 Jun 2018
Print course description
ECTS credits:
3.0
Instruction language:
English
Coordinators:

- P.L.J. Stiers
- H.I.L. Jacobs

Teaching methods:
Lecture(s), Paper(s), Skills
Assessment methods:
Attendance, Assignment, Written exam

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Keywords:
Magnetic Resonance Imaging (MRI), functional MRI, structural MRI, neuroimaging, data analysis,
brain activity
Faculty of Psychology and Neuroscience

Mental Health and Happiness

Full course description

This course will familiarise students with concepts and ideas from 'positive psychology'. Positive psychology was introduced by Martin Seligman around 2000 and can be viewed as a supplementary approach to clinical psychology. The positive psychological movement formulated three aims: (1) to focus on well-being and happiness instead of abnormal behaviour and psychopathology, (2) to be concerned with building positive qualities and strengths instead of repairing damage and (3) to prevent future problems instead of correcting past and present problems.

The course starts with a general introduction to the field of positive psychology. The main concepts will be introduced and clarified, and an overview of the results of happiness studies will be presented. In subsequent meetings, various more specific topics will be discussed by means of lectures and group discussions. These topics include positive psychology and physical health, resilience and positive personality traits, positive psychotherapy and resilience-building interventions. The value of positive psychology as an addition to more traditional clinical psychological approaches will be discussed.

Course objectives

Knowledge of: Positive psychology, happiness, life satisfaction, wellbeing, resilience, determinants of happiness, genetics and neurobiology of resilience, positive emotions, optimism, strengths and virtues, positive interventions, mindfulness, self-compassion, positive health psychology.

PSY4520
Period 6
11 Jun 2018
6 Jul 2018
[Print course description](#)
ECTS credits:
3.0
Instruction language:
English
Coordinator:

- [M.L. Peters](#)

Teaching methods:
Lecture(s), Work in subgroups, Presentation(s), Skills
Assessment methods:
Attendance, Final paper
Keywords:
positive psychology, happiness, wellbeing, mental and physical health, resilience
Faculty of Psychology and Neuroscience

Psychopharmacology

Full course description

Students will become acquainted with current topics in psychopharmacology, i.e. mechanisms of medicinal drugs and nutritional substances.

There will be explicit attention to the different perspectives of Psychopharmacology from the tracks in which participating students are residing, ie. Neuropsychology (NP), Psychopathology (PP) and Drug Development and Neurohealth (DN).

Some research topics and perspectives in Psychopharmacology:

- Old drugs or New Drugs?

- Animal Research or Human Research?

- Nutrition or Drug Treatment?

- Pills or Psychotherapy?

- Bottom-up or Top-down?

Course objectives

Knowledge of: Examples of psychopharmacological studies; present/prepare a presentation on a topic of psychopharmacology.

PSY4335
Period 6
11 Jun 2018
6 Jul 2018
[Print course description](#)
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- [P. van Ruitenbeek](#)

Teaching methods:
Lecture(s), Presentation(s)
Assessment methods:
Attendance, Presentation
Keywords:
psychopharmacology
Faculty of Psychology and Neuroscience

Research Grant Writing Workshop

Full course description

During this workshop students will learn why and how to apply for research grants. The need for acquiring funding for research, the opportunities for, and availability of grant application funding will be discussed. Several researchers who have experience in applying for different types of grants will provide students with first-hand knowledge and tips. Students will learn fundamentals of good grant writing, general preparation of the grant application and how to deal with reviewer comments. Ethical issues including feasibility and acceptability of the research, and the role of the local research ethics committee will be discussed. These skills will be practiced during the workshop. Students will subsequently choose a topic (provided by senior researchers) on which they will write a research proposal during the second-year Research Grant Writing Course (see description of PSY5112).

Course objectives

Knowledge of: Opportunities for funding, how grants can be acquired, grant writing skills.

PSY4112
Period 6
11 Jun 2018
6 Jul 2018
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinators:

- P. Aalten
- S. Köhler

Teaching methods:
Assignment(s), Lecture(s)
Assessment methods:
Attendance, Final paper
Keywords:
Funding possibilities, grant applications, proposal writing
Faculty of Psychology and Neuroscience

Psychiatric Epidemiology

Full course description

The course provides an introduction to the methodologies and analytical strategies of epidemiology as applied to mental health outcomes. The principles and practice of various study types (cohort, case-control, RCT, ecological) will be taught, with emphasis on interpreting associations and possible causality thereof. Consideration will be given to such issues as confounding, bias, and

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moderation. Further topics to be covered include the use and interpretation of diagnostic studies, the basic principles of analysing dichotomous and time-to-event outcomes, genetic epidemiology, and the use of systematic reviews and meta-analysis for building cumulative knowledge.

Course objectives

Knowledge of: Different epidemiological study types, including their purpose, advantages, and disadvantages; calculation and interpretation of effect size and outcome measures for dichotomous and time-to-event outcomes; principles of analysing epidemiological studies; genetic epidemiology; the basic steps of conducting a systematic review and meta-analysis.

PSY4371
Period 6
11 Jun 2018
6 Jul 2018
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- W. Viechtbauer

Teaching methods:
Assignment(s), Lecture(s), Skills, Training(s), Work in subgroups
Assessment methods:
Attendance, Final paper
Keywords:
epidemiology, Methodology, statistics, experimental studies, observational studies, diagnostic studies, systematic reviews, meta-analysis
Faculty of Psychology and Neuroscience

Functional Brain Imaging

Full course description

This workshop is aimed at introducing basic knowledge and principles of functional brain imaging techniques, and at discussing novel advances in relevant fields, such as clinical, animal and cognitive research. The workshop comprises two versions that are tailored to two a priori levels of background that may exist within the Research Master cohort. Version 1 introduces the basic principles of neuroimaging (intro to imaging methods, experimental design & analysis, fMRI signal, etc.) and some applications to clinical research, neuroeconomics, social neuroscience and similar fields. Version 2 introduces a number of technical and methodological advances (multimodal imaging techniques, connectivity analyses, mental chronometry and other matters), and assumes that participants possess a priori knowledge of items discussed in version 1. Assignment to a workshop version is via allocation on an individual basis; participants must follow at least one version. Participants can opt to follow both versions, but will receive no extra credits. General description: The investigation of human brain anatomy and functions using a range of imaging methods represents the most influential development in psychology in the last few years. This workshop

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reviews essential facts about contemporary major structural and functional brain mapping techniques, but the focus will be on functional Magnetic Resonance Imaging (fMRI). Also, the workshop discusses strengths and weaknesses of neuroimaging methods and on the description of relevant applications in the normal and pathological brain. These topics will be investigated through lectures, paper and group discussions, and a final skills session in which fMRI data is analysed. The final assessment is via a paper assignment.

Course objectives

Knowledge of: Functional brain imaging techniques and principles, pros and pitfalls of functional brain imaging, data analysis, experimental design for brain imaging research, hands-on data analysis and visualisation experience.

Prerequisites

Basic knowledge of Brain anatomy, experimental design and statistics.

Recommended reading

Journal articles.
PSY4372
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [V.G. van de Ven](#)

Teaching methods:
Lecture(s), Paper(s), Skills
Assessment methods:
Attendance, Final paper
Keywords:
Magnetic Resonance Imaging (MRI), Functional MRI, structural MRI, positron emission tomography (PET), neuroimaging, data analysis, brain activity
Second year courses

Research Master Specialisation Psychopathology Year 2

Faculty of Psychology and Neuroscience

Personality Disorders

Full course description

Personality disorders are chronic patterns of thought, emotion and behaviour that first appear in adolescence or young adulthood and cause dysfunction in relationships, work and other areas. They affect approximately 10% of the general population and are one of the most prevalent forms of psychopathology seen in mental health care settings. Over the past 30 years, there have been significant advances in the understanding of personality disorders, including their phenomenology

and classification, development and aetiology. Moreover, while many personality disorder patients were traditionally thought to be untreatable, recent advances in psychotherapy and medication are showing promising indications of effectiveness in this challenging population. This course aims to provide students with an overview of theories, classification issues and treatment models of personality disorders, with an emphasis on current scientific debate. Topics include personality theories relating to personality disorders; biological models of personality disorders (e.g. genetic and neurotransmitter models); psychological models of personality disorders (e.g. modern psychodynamic, conditioning, cognitive, interpersonal, integrative models); sociological perspectives on personality disorders; classifications issues (e.g. DSM-IV vs DSM-V diagnosis, Axis I vs. Axis II, categorical vs. dimensional models, polythetic definition, diagnostic techniques); aetiological issues; epidemiological issues; and treatment options.

Course objectives

Knowledge of: Personality theories; biological models of personality disorders; psychological models of personality disorders; sociological perspectives on personality disorders; classification issues; etiological issues; epidemiological issues; treatment options.

PSY5511
Period 1
4 Sep 2017
27 Oct 2017
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- J. Lobbestael

Teaching methods:
Lecture(s), PBL, Presentation(s)
Assessment methods:
Attendance, Presentation, Written exam
Keywords:
Personality disorders, DSM-IV and DSM-V, classification, aetiology, epidemiology, treatment
Faculty of Psychology and Neuroscience

Clinical Skills III: Clinical Interview for the DSM IV (SCID I and SCID II)

Full course description

The aim of this training is for students to become acquainted with the semi-structured clinical interviews for DSM-IV-Tr Axis I (SCID I) and Axis II (SCID II) and the changes in DSM-5 (SCID 1 and 2) classifications. During the training, students receive background information and practical tips about structured clinical interviewing. Furthermore, after having observed the practice of interviewing and scoring (teacher/video material), students will practice several aspects of the SCID interviews themselves. Special emphasis lies on comparing the patient's answer to a question and

the clinical judgement of stating whether or not a certain behavioral criterion is met. In addition, attention will be paid to the interpretation of findings and the explanation of outcomes to clients. To conclude, differences between the DSM-IV and DSM-5 classifications will be addressed.

Course objectives

Knowledge of: Structured Clinical Interview of psychiatric disorders, Structured Clinical Interview of personality disorders. The differences between the DSM-IV-TR and the classification rules of the DSM-5.

PSY5531
Period 1
4 Sep 2017
29 Sep 2017
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- L.H.J.M. Lemmens

Teaching methods:
Skills, Training(s), Work in subgroups
Assessment methods:
Attendance, Observation, Participation
Keywords:
standardized interviewing, psychiatric classifications, judging behavioural criteria
Faculty of Psychology and Neuroscience

Clinical Skills IV: Intervention Techniques

Full course description

Cognitive behavioural therapy (CBT) is a widely used treatment regime that is considered as the evidence-based treatment for a wide range of psychopathological disorders, including anxiety disorders and depression. The behavioural component, exposure, was developed in the sixties by researchers like Skinner and was considered a breakthrough for specific phobias and obsessive-compulsive disorder. These disorders were seen as untreatable at that time. In the eighties, the cognitive component started to develop. Aaron Beck, who, in those days was trained as a psychoanalytic therapist, was able to treat depression within a few months using his cognitive approach. This was also considered a breakthrough, since psychoanalytic treatments for depression at that time normally took years of treatment. Researchers and therapists started to combine the behavioural and cognitive techniques, resulting in cognitive behavioural therapy. Over the years, many studies have shown the effectiveness of this treatment and, in the Netherlands CBT is included in the official professional guidelines for various psychopathological disorders. In this skills training, students get acquainted with the elementary therapeutic procedures of CBT, including case conceptualization, explaining the rationale, and applying exposure and cognitive therapy. Furthermore, they will write a verbatim report or therapy sessions.

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Course objectives

Knowledge of: Elementary therapeutic procedures (CBT), making a case conceptualisation, explaining the rationale, applying exposure and cognitive therapy, writing a verbatim report of therapy sessions.

PSY5523
Period 1
5 Oct 2017
27 Oct 2017
[Print course description](#)
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- [L.H.J.M. Lemmens](#)

Teaching methods:
Assignment(s), Paper(s), Skills, Training(s), Work in subgroups
Assessment methods:
Attendance, Final paper, Observation
Keywords:
therapeutic skills, cognitive behavioural treatment, CBT, case conceptualisation, exposure, cognitive techniques
Faculty of Psychology and Neuroscience

Research Grant Writing Course

Full course description

In this course, students will apply what they have learned during the Research Grant Writing Workshop (PSY4112). Students will work together (groups of max. 5-6 students) to write a research proposal on their selected topic, including an original research hypothesis, design, methods and valorization. Students are encouraged to think across boundaries of different scientific fields. A senior researcher will guide students during this writing process. The students will write their proposal in 3 steps, and they will receive feedback from their mentor and peers. The resulting proposals will be presented during a symposium by way of an oral presentation.

Course objectives

Knowledge of how to:

Review literature, formulate a research hypothesis, design a research study, write a research proposal, present a proposal at a symposium.

Prerequisites

This course is a continuation of the Research Grant Writing Workshop (PSY4112).

Research Master Cognitive and Clinical Neuroscience Specialisation Psychopathology

PSY5112
Period 1
4 Sep 2017
27 Oct 2017
[Print course description](#)
ECTS credits:
3.0
Instruction language:
English
Coordinators:

- [P. Aalten](#)
- [S. Köhler](#)

Teaching methods:
Work in subgroups
Assessment methods:
Attendance, Final paper, Presentation
Keywords:
Research proposal, Interdisciplinary, hypothesis, design, methods, research symposium, peer review