Modules offered in winter term

Biological and Neuroscientific Psychology

Biological Psychology I (Bachelor, 1. Semester, Module I)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1 recommended

Exam: English oral exam

Content: Introduction to relationships between brain, experience, and behavior; functional systems as central nervous system, hormonal system, autonomic nervous system; basic principles of motor activity, genetic, somatosensory; auditory and visual perception; biological research methods including MRI, fMRI, EEG, MEG, TMS, single cell recording

Material: Comparable English textbooks available

Contact: Prof. Dr. Bellebaum; christian.bellebaum@hhu.de

Neuroscientific Psychology I (Bachelor, 3. Semester, Module O)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1 recommended

Exam: English oral exam

Content: overview on cognitive neuroscience topics: neural correlates of perception, attention, memory etc.

Material: Comparable English textbooks available

Contact: Prof. Dr. Bellebaum; christian.bellebaum@hhu.de

Neuroscientific Psychology I (Master, 1. Semester, Module G)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1 recommended; knowledge of the central nervous system and brain behavior relationships (senses, motor actions etc.)

Exam: English oral exam, German written exam possible

Content: Current results in the field of cognitive neuroscience, lectures on e.g. semantic memory, empathy etc.

Material: English reviews as literature

Contact: Prof. Dr. Bellebaum; christian.bellebaum@hhu.de

Physiology of Behavior (Bachelor, 1. Semester, Module A)

Course format: Lecture

ECTS: 8

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Structure and functions of neurons, synapses, and neurotransmitter systems in the brain; principles of excitability, conduction, and signal transduction; psychoneuroendocrinology; physiology of sensory and motor systems; organization of behavior; role of neurotransmitter systems in normal brain function and psychiatric disorders

Contact: Prof. Dr. Kalenscher; office.comparative@hhu.de

Advanced Neuropsychology I (Bachelor, 5. Semester, Module R)

Course format: Practical course

ECTS: 4

Language: German or English, depending on teacher availability

Requirements: None

Exam: German or English written exam and/or oral exam and/or work sample

Content: Research methods in humans and animals: brain stimulation, functional neuroimaging, evoked potentials, biofeedback, pupillometry, neuropsychological testing, behavioral neuroscience in rodents

Contact: Prof. Dr. Kalenscher/ Maurice Zech; maurice-philipp.zech@hhu.de

Neuroscientific Psychology II (Master, 3. Semester, Module K)

Course format: Seminar

ECTS: 4

Language: German or English, depending on teacher availability

Requirements: None

Exam: Graded report in German or English

Content: In-depth knowledge and presentation of scientific results in Neuropsychology, quantitative and qualitative methods in Neuropsychology (e.g. measuring and manipulating brain activity), animal research (Elevated Plusmaze, Morris water maze, lesion studies, psychopharmacology), human research (behavioral studies, EEG/ERP, brain imaging techniques)

Contact: Prof. Dr. Kalenscher; office.comparative@hhu.de

Prevention and Ethics

Preventative and Rehabilitative Concepts (Bachelor, 5. Semester, Module X)

Course format: Lecture

ECTS: 2

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Overview of the principles of preventative and rehabilitative concepts in psychology; characteristics and function of different preventative and rehabilitative approaches for specific target populations; approaches and methods of prevention in specific fields of interest such as aging, addiction, and general health

Material: Comparable English textbooks available

Contact: Prof. Dr. Becker; sbecker@hhu.de

Professional Ethics and Professional Law (Bachelor, 5. Semester, Module Y)

Course format: Lecture

ECTS: 2

Language: German

Requirements: German level C1

Exam: English oral exam, German written exam possible

Content: Ethical and professional behavior in psychological work; ethics in research and teaching; aspects and guidelines of good clinical practice; professional and social law in psychotherapy with related guidelines and measures for offences

Material: No comparable English textbooks available, content in many instances specific to the German system

Contact: Prof. Dr. Becker; sbecker@hhu.de

Differential Psychology and Psychological Testing

Differential and Personality Psychology I (Bachelor, 1. Semester, Module K)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1

Exam: English oral exam

Content: History, foundations, and paradigms of personality psychology; individual differences; traits vs. states; data collection methods; factor analysis; cluster analysis; the Big Five; intelligence; nature vs. nurture

Material: English textbook available

Contact: Prof. Dr. Musch; jochen.musch@hhu.de

Introduction to Psychological Assessment II (Bachelor, 3. Semester, Module E)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1

Exam: English oral exam

Content: Goals and foundations of psychological measurement; methods of psychological testing and assessment; objectivity; reliability; validity; Cohen's Kappa; Cronbach's alpha; moderator and suppressor variables; classical test theory; item response theory (Rasch, Birnbaum); scale levels; speed vs. power tests

Material: English textbook available

Contact: Prof. Dr. Musch; jochen.musch@hhu.de

Psychological Assessment and Decision-making (Master, 1. Semester, Module B)

Course format: Lecture

ECTS: 4

Language: German

Requirements: German or English level C1

Exam: English oral exam

Content: Decision-making, heuristics and biases, cognitive illusions, psychological testing and assessment, social choice theory, game theory, social dilemmas, personnel selection, fairness, social desirability, multiple-choice-tests

Material: English textbook available

Contact: Prof. Dr. Musch; jochen.musch@hhu.de

Social Psychology

Social Psychology (Bachelor, 3. Semester, Module L)

Course format: Lecture

ECTS: 8

Language: German

Requirements: German level C1 required

Exam: German written or oral exam

Content: Social cognition; social perception; self-knowledge; dissonance theory; attitudes and attitude change; conformity; group processes; interpersonal attraction; prosocial behavior; aggression; prejudice; social psychology and health; chemical communication; pheromones; social neuroscience

Contact: Prof. Dr. Pause; bettina.pause@hhu.de

Clinical Psychology

Abnormal Psychology I (Master, 1. Semester, Module F)

Course format: Lecture

ECTS: 4

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Neurobiological fundamentals and current developments in the etiology, diagnosis, and treatment of psychological disorders, research methods in clinical psychology, general principles of modern psychotherapy, advanced techniques in cognitive-behavior theory, understanding and critical discussion of psychotherapy research methods

Material: Comparable English textbooks available

Contact: Prof. Dr. Becker; sbecker@hhu.de

Abnormal Psychology I: Reporting of Clinical Assessments (Master, 1. Semester, Module F)

Course format: Seminar

ECTS: 4

Language: German

Requirements: German level C1 required

Exam: German written exam

Content: Writing and presenting clinical evaluations

Material: No comparable English textbooks available, content in many instances specific to the German system

Contact: Prof. Dr. Becker; sbecker@hhu.de

Clinical Psychology II (Master, 3. Semester, Module J)

Course format: Seminar

ECTS: 4

Language: German

Requirements: Basic knowledge in clinical psychology

Exam: Graded report or presentation in German or English

Content: In-depth knowledge on methods in psychotherapy and etiological models for specific psychological disorders, case study (diagnostic and therapy planning), critical evaluation of current etiological models; topics vary each year depending on the lecturers

Material: Comparable English textbooks available

Contact: Prof. Dr. Becker; sbecker@hhu.de

Cognitive Psychology

Introduction to Industrial Psychology and Ergonomics (Bachelor, 3. Semester, Module M)

Course format: Lecture

ECTS: 8

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Light, illumination, and visual perception; sound and auditory perception; tactile perception; vestibular perception; object and pattern recognition; decision making; displays; control; engineering anthropometry and work-space design; biomechanics; stress and workload; effects of health, nutrition, drugs, and personality traits on human performance; selection and training; aging and human performance; human-computer interaction; research and evaluation methods

Material: English textbook available

Contact: Prof. Dr. Buchner; axel.buchner@hhu.de

Experimental Psychology II: Learning, Attention, and Memory (Bachelor, 1. Semester, Module H)

Course format: Lecture

ECTS: 8

Language: German

Requirements: German level C1

Exam: German written or oral exam

Content: Basis principles of learning and behavior; Pavlovian conditioning; instrumental conditioning; attention; memory; knowledge representation

Contact: Prof. Dr. Jocham; gerhard.jocham@hhu.de

Applied Cognitive Psychology I (Master, 1. Semester, Module E)

Course format: Lecture

ECTS: 4

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Critical discussion of research findings concerning perception, attention, learning, memory, and decision-making. Application of these findings/theories in eyewitness memory and advertisement principles

Material: English original literature available

Contact: Prof. Dr. Bell; raoul.bell@hhu.de

Statistics and Research Methods

Quantitative Methods I (Bachelor, 1. Semester, Module B1)

Course format: Lecture

ECTS: 6

Language: German

Requirements: None

Exam: English oral exam, German written exam possible

Content: Measurement theory; descriptive statistics (frequency distributions; measures of central tendency; variation and position; z scores); probability; discrete and continuous probability distributions; confidence intervals; hypothesis testing; one-sample t test

Material: English textbook available

Contact: Prof. Dr. Bayen; sekretariat-bayen@hhu.de

Statistical Analysis (Bachelor, 3. Semester, Module C)

Course format: Seminar

ECTS: 4

Language: German or English, depending on teacher availability

Requirements: Language requirements depending on teacher availability

Exam: Written exam and/or oral exam and/or work sample (English depending on teacher availability)

Content: Seminar in computer-assisted data analyses: Descriptive and inferential statistics including t-tests; one-factorial and multi-factorial analysis of variance; repeated-measures analysis of variance; analysis of covariance; linear and logistic regression using SPSS

Contact: Prof. Dr. Jocham; gerhard.jocham@hhu.de

Quantitative Methods and Evaluation: Computerized Analysis (Master, 1. Semester, Module A)

Course format: Seminar

ECTS: 4

Language: German

Requirements: Descriptive statistics, probabilities, binomial distribution, confidence intervals, one-sample and two-sample hypotheses tests, correlation, simple regression, two-way ANOVA with and without repeated measurement, experimental design, computer-assisted data analyses (t tests, two-way ANOVA)

Exam: Work sample in German or English

Content: Implementation of computer-assisted data analyses using different software packages: multivariate methods, parameter estimation, model fit

Material: English textbook available

Contact: Prof. Dr. Bayen/ Dr. Schaper; marie.schaper@hhu.de

Quantitative Research Methods and Evaluation I (Master, 1. Semester, Module A)

Course format: Lecture

ECTS: 4

Language: German

Requirements: Descriptive statistics, probabilities, binomial distribution, confidence intervals, one-sample and two-sample hypotheses tests, correlation, simple regression, two-way ANOVA with and without repeated measurement, experimental design

Exam: English oral exam only about this part

Content: Advanced quantitative methods (multivariate methods, mathematical modeling, and regression analysis), formal models (multinomial processing tree models)

Material: English textbook and original literature available

Contact: Prof. Dr. Bayen/ Dr. Schaper; marie.schaper@hhu.de

Practical Course in Experimental Research I (Bachelor, 3. Semester, Module D)

Course format: Practical course

ECTS: 3

Language: German or English, depending on teacher availability

Requirements: advanced statistics, i.e., correlation, simple regression, two-sample hypotheses tests, two-way ANOVA with and without repeated measurement, in some courses also non-parametric statistics. Experimental design. Computer-assisted data analyses (or must concurrently take the computer course from Module C)

Exam: Poster presentation in German or English

Content: Planning, conducting, analyzing, and reporting psychological experiments

Material: No, but English class available

Contact: Prof. Dr. Zimmermann/ Sandra Tyralla; eckart.zimmermann@hhu.de

Participation in Research (Master, 3. Semester, Module C)

Course format: Project Module

ECTS: 11

Language: German or English (depending on research group)

Requirements: Only for Master students; Knowledge in data analysis, research design, the topic of the report

Exam: Attendance (flexible time)

Material: None

Contact: All research groups

Bachelor Thesis

Course format: Report

ECTS: 12

Language: German or English (depending on research group)

Requirements: Only for Bachelor students; Knowledge in data analysis, research design, the topic of the report

Exam: Graded report (flexible time; English possible)

Contact: All research groups

Master Thesis

Course format: Report

ECTS: 30

Language: German or English (depending on research group)

Requirements: Only for Master students; Knowledge in data analysis, research design, the topic of the report

Exam: Graded report (flexible time; English possible)

Contact: All research groups