

Bachelor of Science in Psychology

Module Descriptions

Modul A: Physiologische Grundlagen des Verhaltens

Module A: Physiological Bases of Behavior

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.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Kalenscher

Modul B1: Quantitative Methoden I

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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.

- ◆ 6 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Bayen

Modul B2: Quantitative Methoden II

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Independent and dependent-samples t tests; statistical power; analysis of variance (one-factorial; multi-factorial; repeated-measures ANOVA); correlation; simple linear regression; non-parametric tests.

- ◆ 6 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Bayen

Modul C: Versuchsplanung und -auswertung

Module C: Research Methods and Statistical Analyses

Seminar in research methods: Literature search; generating and testing hypotheses; experimental design; data collection; overview of data analytical techniques; research ethics; evaluation of empirical research; ways to present empirical research.

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.

- ◆ 8 Credit Points
- ◆ German and English
- ◆ person in charge: Prof. Dr. Heil

Modul D: Experimentelles Praktikum

Module D: Laboratory Course in Experimental Research

Planning, conducting, analyzing, and reporting psychological experiments.

- ◆ 6 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Bayen

Modul E: Grundlagen der Diagnostik

Module E: Introduction to Psychological Assessment

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.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Musch

Modul F: Diagnostische Verfahren

Module F: Psychological Testing and Assessment

Applications of psychological assessment; DIN 33430; personality and achievement tests; behavior analysis; clinical interviews.

- ◆ 4 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Musch

Modul G: Allgemeine Psychologie I - Wahrnehmung und Denken

Module G: Experimental Psychology I - Perception and Thinking

Visual perception (physiology; psychophysics; spatial frequency and contrast; object perception; color perception; perception of space and distance; movement perception; attention; scene perception); auditory perception (physiology; psychophysics; sound source location; perception of complex sounds; auditory scene perception); perception of music; perception of speech; somatosensory perception; olfactory perception; gustatory perception.

Problem solving; expertise; creativity; hypothesis testing; judgement; decision-making; inductive and deductive reasoning; human rationality.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Buchner

Modul H: Allgemeine Psychologie II - Lernen, Aufmerksamkeit & Gedächtnis

Module H: Experimental Psychology II - Learning, Attention, and Memory

Basis principles of learning and behavior; Pavlovian conditioning; instrumental conditioning; experimental approaches to motivation and emotion; attention; memory; knowledge representation.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Heil

Modul I: Biologische Psychologie

Module I: Biological Psychology

Introduction to relationships between brain, experience, and behavior; functional systems and perception; states and contents of consciousness; hemispheric lateralization; comparative studies of gender; language; cognitive and metacognitive functions; consciousness and culturalization; research methods including functional neuroanatomy and behavioral analysis.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Stoerig

Modul J: Entwicklungspsychologie

Module J: Developmental Psychology

Developmental Psychology I: Theories and concepts; methods in developmental psychology; development in childhood, adolescence, and adulthood; development of specific functions (motor behavior; memory, perception; emotion; language; cognition; etc.).

Developmental Psychology II: Biological bases of development; studies with animals; pathological development; current research topics.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Bayen

Modul K: Differentielle Psychologie und Persönlichkeitspsychologie

Module K: Differential and Personality Psychology

History, foundations, and current controversies in Differential Psychology; paradigms of personality psychology; individual differences; traits vs. states; data collection methods; factor analysis; cluster analysis; the Big Five; Eysenck; intelligence; nature vs. nurture.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Pietrowsky

Modul L: Sozialpsychologie

Module L: Social Psychology

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 neurosciences.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Pause

Modul M: Basismodul Arbeitspsychologie und Ergonomie

Module M: Introduction to Industrial Psychology and Ergonomics

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.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Buchner

Modul N: Basismodul Klinische Psychologie

Module N: Introduction to Clinical Psychology

History of Abnormal Psychology; research paradigms in Abnormal Psychology; etiology; epidemiology; diagnosis and treatment of clinical disorders; behavior medicine and public health; principles of cognitive-behavior therapy; methods in psychotherapy research.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Pietrowsky

Modul O: Basismodul Neurowissenschaftliche Psychologie

Module O: Introduction to Neuroscientific Psychology

Experimental and clinical approaches - Part I: Research methods including structural and functional neuroanatomy (computer, magnetic resonance, functional magnetic resonance, and positron emission tomography, electroencephalography; evoked potentials; magnetoencephalography; pupillometry).

Experimental and clinical approaches - Part II: Neuropsychology and brain lesions (degeneration, functional localization in the human cerebral cortex, neuropsychological deficits and syndromes, diagnostic tests, rehabilitation and neuroplasticity)

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Stoerig

Modul P: Aufbaumodul Arbeitspsychologie und Ergonomie

Module P: Advanced Industrial Psychology and Ergonomics

Measurement and analysis of evoked brain potentials; measurement of sound; measurement of light; measurement of visual acuity and contrast perception; measurement and analysis of basic physiological parameters (skin response, breathing rate, heart rate, and heart rate variability); response time measurement and analysis.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Buchner

Modul Q: Aufbaumodul Klinische Psychologie

Module N: Advanced Clinical Psychology

An introduction to basic therapeutic techniques (clinical interview, relaxation techniques, client-centered therapy, SORCK-model, horizontal and vertical plan-analysis, schema-analysis, exposure techniques, cognitive techniques); empirical studies in Abnormal Psychology.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Pause

Modul O: Aufbaumodul Neurowissenschaftliche Psychologie

Module O: Advanced Neuroscientific Psychology

Applications of neuroscientific and neuropsychological research methods in human and animal studies: Practicals in brain stimulation; functional neuroimaging; evoked potentials; biofeedback; pupillometry; neuropsychological tests; behavioral neuroscience in rodents.

- ◆ 8 Credit Points
- ◆ German
- ◆ person in charge: Prof. Dr. Stoerig