

Bachelor of Science in Psychology

Abbreviated Module Descriptions

Modul A: Physiologische Grundlagen des Verhaltens

Module A: Physiological Bases of Behavior (8 Credit Points)

Structure and function of neurons, synapses, and neurotransmitter systems in the brain; principles of excitability, conduction, and signal transduction; functional anatomy of the nervous system; autonomic nervous system; psychoneuroendocrinology; physiology of sensory and motor systems; organization of behavior; role of neurotransmitter systems in normal brain function and psychiatric disorders.

Modul B1: Quantitative Methoden I

Module B1: Quantitative Methods I (6 Credit Points)

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.

Modul B2: Quantitative Methoden II

Module B2: Quantitative Methods II (6 Credit Points)

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.

Modul C: Versuchsplanung und -auswertung

Module C: Research Methods and Statistical Analyses (8 Credit Points)

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, and linear and logistic regression using SPSS.

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Modul D: Experimentelles Praktikum

Module D: Laboratory Course in Experimental Research (6 Credit Points)

Planning, conducting, analyzing, and reporting psychological experiments.

Modul E: Grundlagen der Diagnostik

Module E: Introduction to Psychological Assessment (8 Credit Points)

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; norms; speed vs. power tests.

Modul F: Diagnostische Verfahren

Module F: Psychological Testing and Assessment (4 Credit Points)

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

Modul G: Allgemeine Psychologie I – Wahrnehmung und Denken

Module G: Experimental Psychology I – Perception and Thinking (8 Credit Points)

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; judgment; decision making; inductive and deductive reasoning; human rationality.

Modul H: Allgemeine Psychologie II – Lernen, Aufmerksamkeit und Gedächtnis

Module H: Experimental Psychology II – Learning, Attention, and Memory (8 Credit Points)

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

Modul I: Biologische Psychologie

Module I: Biological Psychology (8 Credit Points)

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.

Modul J: Entwicklungspsychologie

Module J: Developmental Psychology (8 Credit Points)

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.

Modul K: Differentielle Psychologie und Persönlichkeitspsychologie

Module K: Differential and Personality Psychology (8 Credit Points)

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.

Modul L: Sozialpsychologie

Module L: Social Psychology (8 Credit Points)

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.

Modul M: Basismodul Arbeitspsychologie und Ergonomie

Module M: Introduction to Industrial Psychology and Ergonomics (8 Credit Points)

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; biomechan-

ics; 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.

Modul N: Basismodul Klinische Psychologie

Module N: Introduction to Abnormal Psychology (8 Credit Points)

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.

Modul O: Basismodul Neurowissenschaftliche Psychologie

Module O: Introduction to Neuroscientific Psychology (8 Credit Points)

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.

Part II: Neuropsychology and brain lesions: Degeneration; functional localization in the human cerebral cortex; neuropsychological deficits and syndromes; diagnostic tests; rehabilitation and neuroplasticity.

Modul P: Aufbaumodul Arbeitspsychologie und Ergonomie

Module P: Advanced Industrial Psychology and Ergonomics (8 Credit Points)

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.

Modul Q: Aufbaumodul Klinische Psychologie

Module Q: Advanced Abnormal Psychology (8 Credit Points)

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

Modul R: Aufbaumodul Neurowissenschaftliche Psychologie

Module R: Advanced Neuroscientific Psychology (8 Credit Points)

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.