

Module Catalogue: Master of Science – Cognitive-Affective Neuroscience

Mandatory Subjects:

Module code	CAN1
Module name	Cognitive Neuroscience
Responsible for Module	Prof. Dr. Thomas Goschke
ECTS credits	12 ECTS points
Workload	360 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 4 x 45min. / week Extended Seminar: 2 x 45min. / week Selfstudy
Content	This module covers theories, models, research methods, and empirical findings of cognitive neuroscience. Themes include neural mechanisms underlying decision-making, intentional action, and cognitive control. After completing this module, students should be able to critically reflect upon theories, methods, and empirical findings of cognitive neuroscience and apply them to novel research questions or practical problems.
Methods of assessment	Module examination: oral examination (25 minutes) + two presentations (not graded) + term paper or project work (not graded)
Language	German
Frequency	Annually; starting in the winter term
Duration	3 semesters

Module code	CAN2
Module name	Psychobiology
Responsible for Module	Prof. Dr. Clemens Kirschbaum
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 2 x 45min. / week Extended Seminar: 2 x 45min. / week Selfstudy
Content	This module covers the structure and function of the endocrine system and immune system, regulation of endocrine processes by the central nervous system, modulation of cognitive performances by hormones and messengers of the immune system, and methods of measurement for determination of hormone levels and immune parameters.
Methods of assessment	Module examination: written examination (90 minutes)
Language	German
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CAN3
Module name	Lifespan Developmental Neuroscience
Responsible for Module	Prof. Shu-Chen Li, Ph.D.
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 2 x 45min. / week Extended Seminar: 2 x 45min. / week

	Selfstudy
Content	This module covers key theories, research methods, and empirical findings of lifespan developmental neuroscience, in particular neuroscientific principles of cognitive, motivational, emotional and social development across the lifespan. After completing this module, students should be able to design their own scientific research on the neuro-cognitive basics of human development.
Methods of assessment	Module examination: written examination (90 minutes) + presentation or term paper (graded)
Language	English
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CAN4
Module name	Neurobiology of Individual Differences
Responsible for Module	Prof. Dr. Alexander Strobel
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 2 x 45min. / week Extended Seminar: 2 x 45min. / week Selfstudy
Content	This module covers neurobiological factors that influence individual differences in temperament, cognition, and social behaviour, their relevance for clinical psychology and psychiatry, as well as basic knowledge about the collection and analysis of neurobiological parameters.
Methods of assessment	Module examination: oral examination (25 minutes)
Language	German
Frequency	Annually; starting in the summer term
Duration	2 semesters

Module code	CAN5
Module name	Cognitive Neuroscience Methods
ECTS credits	9 ECTS points
Responsible for Module	Prof. Dr. Stefan Kiebel
Workload	270 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 2 x 45min. / week Extended Seminar: 2 x 45min. / week Selfstudy
Content	This module focuses on research methods and techniques of cognitive neuroscience, including their applications and statistical analysis methods, as well as the limitations of functional imaging procedures. After completing this module, students should be able to use these methods for the analysis of typical cognitive neuroscience experiments, and interpret the results.
Methods of assessment	Module examination: oral examination (25 minutes)
Language	To be discussed (German/English)
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CAN6
Module name	Advanced Statistical Methods
Responsible for Module	Prof. Dr. Stefan Scherbaum
ECTS credits	6 ECTS points

Workload	180 h
Teaching and learning activities	Seminar: 4 x 45min. / week Selfstudy
Content	This module focuses on complex multivariate statistics and cognitive modelling, including modelling of latent variables, measurement of change, modelling of interindividual and intraindividual variability, -computational neuroscience, as well as the possibilities and limits within specific application situations. In this module, students gain practical experience with analysis of example data and corresponding statistical software.
Methods of assessment	Module examination: written examination (90 minutes)
Language	German
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CAN7
Module name	Applied Cognitive Neuroscience
Responsible for Module	Prof. Dr. Alexander Strobel
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	6 x 45min. / week (thereof at least 2x45min./week Lecture and at least 2x45min./week Seminar) Selfstudy
Content	This module focuses on approaches, research methods, and central empirical findings in the field of applied cognitive neuroscience; choice of three courses according to interests. After completing this course, students should be able to apply basic knowledge to practical problems in applied cognitive neuroscience.
Methods of assessment	Module examination: three examinations (different examination methods).
Language	German
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CANI
Module name	Cognitive-Affective Neuroscience Internship
Responsible for Module	Prof. Shu-Chen Li
ECTS credits	12 ECTS points
Workload	360 h
Teaching and learning activities	210 working hours (distributed over 6 weeks) + Internship organization, Selfstudy and report writing
Content	Knowledge of fields of research activities of cognitive affective neuroscience and developmental neuroscience, as well as the corresponding working conditions and circumstances. The internship serves to advance and transfer knowledge and skills acquired through the studies to practical applied competencies.
Methods of assessment	Module examination: internship report (not graded)
Language	-
Frequency	During winter or summer term
Duration	1 semester

Required Elective:

15 ECTS in total to be chosen

Module code	CAN-WP1
Module name	Human Factors
Responsible for Module	Dean
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 4 x 45min. / week Seminar: 2 x 45min. / week Selfstudy
Content	This module covers key psychological concepts, theories and findings regarding psychological findings about the determinants of human behaviour and performance in socio-technical systems. After completing this module, students should be able (a) to demonstrate their knowledge and understanding of the key concepts, theoretical approaches, methods, and findings of psychological research on human behavior and performance in socio-technical systems, (b) to apply their knowledge and understanding to issues of how interactions within socio-technical systems can be optimized, and (c) to discuss implications for human factors design. After completing this module, students should be able to introduce and evaluate procedures for interaction optimisation, in and with socio-technical systems.
Methods of assessment	Prerequisite: presentation or term paper Module examination: two oral examinations (30 minutes each)
Language	German or English
Frequency	Annually; starting in the summer term
Duration	2 semesters

Module code	CAN-WP2
Module name	Occupational Health Psychology
Responsible for Module	Prof. Dr. Jürgen Wegge
ECTS credits	6 ECTS points
Workload	180 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 2 x 45min. / week Selfstudy
Content	This module covers recent psychological findings on occupational health psychology. After completing this module, students should be able to apply techniques in order to diagnose load and strain and to develop recommendations for health promotion in work systems.
Methods of assessment	Prerequisite: presentation or term paper Module examination: oral examination (30 minutes)
Language	German
Frequency	Annually; starting in the summer term
Duration	1 semester

Module code	CAN-WP3
Module name	Clinical Psychology
Responsible for Module	Programme Coordinator for Clinical Psychology and Psychotherapy
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 6 x 45min. / week Selfstudy
Content	This module covers basic models of psychopathology, important therapeutic

	approaches, and the process from diagnosis to intervention. After completing this module, students should be able to critically reflect upon mechanisms of action and current aspects of basic and applied research in the field of clinical psychology and psychotherapy.
Methods of assessment	Module examination: written examination (90 minutes)
Language	German
Frequency	Annually; starting in the winter term
Duration	2 semesters

Module code	CAN-WP4
Module name	Basic Skills in Clinical Psychology
Responsible for Module	Programme Coordinator for Clinical Psychology and Psychotherapy
ECTS credits	6 ECTS points
Workload	180 h
Teaching and learning activities	Extended Seminar: 4 x 45min. / week Selfstudy
Content	This module covers diagnostic criteria of psychological disorders, differential diagnostics, clinical-diagnostic methods, clinical-psychological conversation techniques, and diagnostic standard methods.
Methods of assessment	Module examination: written examination (90 minutes) + term paper (graded)
Language	German
Frequency	Annually; starting in the summer term
Duration	1 semester

Module code	CAN-WP5
Module name	Behavioral Epidemiology and Intervention
Responsible for Module	Prof. Dr. Katja Beesdo-Baum
ECTS credits	9 ECTS points
Workload	270 h
Teaching and learning activities	Lecture: 2 x 45min. / week Seminar: 4 x 45min. / week Selfstudy
Content	This module covers basic knowledge about epidemiology, especially behavioural epidemiology, including concepts, study designs, methods, and recent findings. After completing this module, students should be able to critically assess epidemiological literature and to draw appropriate conclusions.
Methods of assessment	Module examination: written examination (90 minutes)
Language	German
Frequency	Annually; starting in the winter term
Duration	1 semester

Module code	CAN-WP6
Module name	Psychiatry
Responsible for Module	Prof. Dr. Andrea Pfennig
ECTS credits	6 ECTS points
Workload	180 h
Teaching and learning activities	Lecture: 4 x 45min. / week Selfstudy
Content	This module covers basic knowledge from psychiatry and psychotherapy, as well as child and adolescent psychiatry and psychotherapy, including essential symptoms, diagnostics, therapy, and care.

Methods of assessment	Module examination: written examination (90 minutes)
Language	German
Frequency	Annually; starting in the summer term
Duration	2 semesters