Module Book

M.Sc. Psychology

Albert-Ludwigs-Universität Freiburg
Faculty of Economics and Behavioral Science
Institute of Psychology

Stand: PO 2023, Mai 2025

UNI FREIBURG

1 Profile and structure of the Master of Science Psychology

1.1 The Master's program

1.1.1 Overview

Subject	Psychology
Degree	Master of Science (M.Sc.)
Duration	4 semesters / 2 years, standard duration of studies
Type/Format	consecutive, full-time studies on campus
ECTS points	120
Language	English and German
University	Albert-Ludwigs-Universität Freiburg
Faculty	Faculty of Economics and Behavioral Sciences
Institute	Institute of Psychology
Admission Requirements	Bachelor degree in Psychology, lasting at least three years with a minimum GPA of 2,5 (in the German grading system) at a professionally accredited German university or an otherwise accredited foreign university, 155 ECTS points in Psychology, of which at least 30 ECTS points in the field of psychological methodology, B2 English, B2 German
Intake	Winter semester (no summer semester intake possible)
Homepage	www.psychologie.uni-freiburg.de

1.1.2 Profile and Qualification Goals

The Master of Science in Psychology is a two-year program comprising 120 ECTS points. It offers a broad and consecutive degree at an advanced level with a focus on psychological science. It comprises basic and application-oriented fields. Core areas are cognitive neuropsychology, the interplay of cognition and action, "higher" cognitive functions, learning and instruction, economic psychology, and issues of sustainability and communication. The Master of Science in Psychology also enables students to understand and apply advanced research methods as they relate to these fields. Students will furthermore acquire competence in planning and implementing research projects on basic and application-oriented research questions in different contexts and in psychological diagnostic processes and procedures, including the writing of expert reports. The curriculum comprises required modules as well as a broad range of elective modules, which permit students to create a profile of areas in which they deepen their knowledge and understanding. This is complemented by a module in which skills are acquired that enable students to apply acquired knowledge and competencies in small hands-on projects. Examples comprise the application of specific complex research methods, skills in the area of open science and science ethics, practice in science communication and in scientific writing.

Major qualification goals are

- to impart extended and advanced knowledge in basic and application-oriented fields of psychological research, including cognitive neuropsychology, cognition and action, higher cognition, learning and instruction, economic psychology, and sustainability and communication,
- to enable critical understanding of principles, concepts, processes, and theories in such fields,
- to qualify students to author scientific works grounded in a thorough methodological education,
- to enable students to conduct searches of the scientific literature on basic and application-oriented questions, to understand and critically assess the contents and methods of the relevant scientific works, and to synthesize the implications of the identified references,
- to enable students to plan and implement research projects in basic research and to communicate the outcomes to other scientists as well as to the public in appropriately audience-oriented ways,
- to convey knowledge of advanced research methodology and to acquire the ability to apply state-of-the art methods to analyze complex data structures,
- to gain knowledge and practice in the instruments, procedures, measures, and general principles of psychological diagnostics, including the writing of expert reports based on diagnostic outcomes in areas such as educational counseling and human resources.

In terms of competencies cross-cutting psychological sub-disciplines, degree holders will be able to inform colleagues, the public, institutions, and public authorities about relevant psychological evidence in professional contexts. They interpret the terminology, scientific evidence, and positions of their field and integrate a detailed and critical understanding of a range of specialized subfields in developing and applying independent problem solutions, taking into account societal and ethical implications of such solutions. They can communicate their ideas in an unambiguous way and engage in interdisciplinary exchanges about problems and solutions with scientists and laypersons at a high scientific level. They are able to conduct these exchanges with scientists and laypersons cooperatively and take on superordinate responsibilities. In addition to interdisciplinary skills in project management and communication as well as analytical, problem-solving and decision-making skills, the course promotes personal development and an understanding of lifelong learning.

1.1.3 Modules, ECTS points

The master program is organized in modules. A module is a self-contained unit within a scientific topic or area that is defined by specific learning goals. Modules may consist of one or more courses. A course is the smallest unit described in this Module Handbook. There are different types of courses including lectures, seminars, and colloquia.

Module descriptions clarify elements such as title, qualification goals, teaching and learning methods, prerequisites for participation, course content, type of assessment, and how many ECTS points according to the European Credit Transfer and Accumulation System (ECTS) the student will earn when completing the module successfully. These points define the associated workload for the student. One point is equivalent to a workload of 30 hours. The recommended number of ECTS points to be completed per term is 30 ECTS points. The ECTS points define the weighting of a module within the entire master program and its impact on the final overall grade (similar to the Grade Point Average, GPA)

1.1.4 Overview of all modules

Modules in the following superordinate areas are parts of the program:

Areas / Modules	ECTS points
Methods	20

Basic and Application-Oriented Psychological Science	10
Required Elective Modules	32
Skills / Project Oriented Learning	8
Interdisciplinary Studies	6
Master's Module	34
Internship	10
Total	**120**

Methods
- Module Diagnostic and Assessment (10 ECTS)
- Module Research Methods (10 ECTS)

Basic and Application-Oriented Psychological Science
- Module Basic and Application-Oriented Psychological Science (10 ECTS)

Required Elective Modules
- Required Elective Modules (four modules out of six eligible modules, with the constraint that at least one module has to be chosen from the basic research focus area, BR, and from the application-oriented focus area, AO (32 ECTS):
  - Cognitive Neuropsychology (BR)
  - Learning and Instruction (AO)
  - Cognition and Action (BR)
  - Economic Psychology (AO)
  - Higher Cognition (BR)
  - Sustainability and Communication (AO)

Skills / Project Oriented Learning

In this module, students choose specific skills to be acquired. Examples of such skills are listed in a catalogue involving research methods, skills related to open science, data security or ethics in psychological research, science communication and outreach, scientific writing, scientific teaching, and application of psychological knowledge in coaching and organizational contexts. Skills are aquired in self-organized work at the respective project. Project-oriented seminars focus on mentoring and supervision to support students to develop their own skills (8 ECTS). Students and teachers can also propose skills outside the catalogue with students' proposals being accepted conditional upon approval and supervision by a teacher of one of the seminars.

Interdisciplinary Studies

In the course of the study program of the Master of Science in Psychology, a non-psychological elective module has to be chosen. Six ECTS points have to be acquired in that module – the module has to be completed until the end of the study program. The following disciplines can be chosen:

- Biology
- Educational science
- Computer Science
- Cognitive Science
- Criminology
- Neurolinguistics
- Philosophy
- Sociology

- Sports Science
- Economic Sciences

Internship

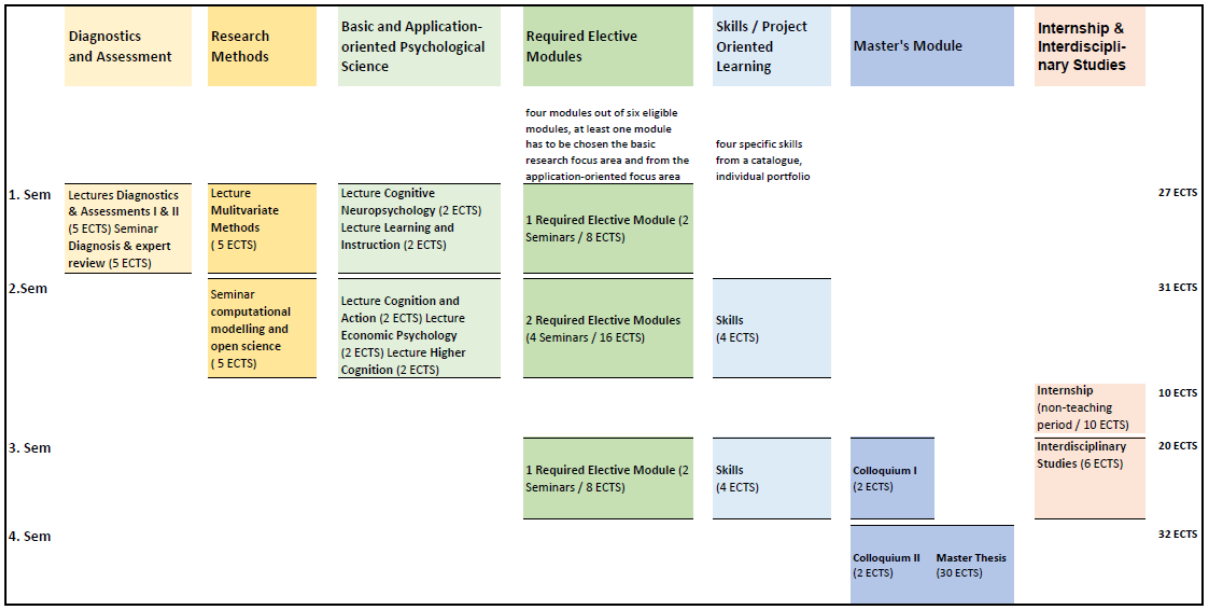
In the course of the master program, a professional work experience of a duration of 300 working hours comprising 10 ECTS points has to be completed as an internship. It is usually completed during the lecture-free periods. The internship provides the student with some work experience, but is also an excellent opportunity to explore a particular professional area and obtain hints for a future career. It can be done in Germany or abroad. Internships have to be independently sought and organized by the students, but all professors are willing to give tips and contacts from their networks on request. The internship has to be successfully completed before the admission to the master's thesis.

Master's Module

The Master's module comprises the master's thesis as well as two colloquia. The master's thesis is a written examination that takes the form of a scientific thesis presenting an original research project. Research project and thesis writing are conducted in the course of the third and fourth semester. Admission to the master's thesis requires 54 ECTS points, which must include those acquired in the modules "Research Methods", "Basic and Application-Oriented Psychological Science I" and "Internship". The master's thesis is to be completed within six months and is awarded with 30 ECTS points. The colloquia provide competencies in presenting and defending the design and results of psychological research projects. The colloquia comprise 4 ECTS points.

1.1.5 Optional study plan

The optional study plan specifies which modules are planned for which semester, which modules are required modules and which ones are elective modules as well as how many ECTS points can be acquired per course.



The study plan accommodates the possibility to integrate a stay abroad. A suitable window is open in the second year of studies. Due to heterogeneous semester dates of the different European universities, the third semester as well as a stay of a full-year will fit in best. The Institute entertains a network for student exchanges with a sizeable number of attractive European university locations via the Erasmus

and Eucor program. The University Freiburg furthermore organizes stays beyond Europe via its International Office.

1.1.6 Language

The master program comprises two modules that are taught in English with examinations optionally in English or German (Master's Module, Basic and Application-oriented Psychological Science I) two modules that are taught in German with examinations in German (Research Methods, Diagnostics and Assessment) as well as four modules that are taught and examined optionally in German or English (Basic and Application-oriented Psychological Science II, Skills, Internship, Interdisciplinary Studies).

For admission to the master program, proof of advanced language skills of B2 in German and B2 in English on the CEFR (Common European Framework of Reference for Languages) is required. Native speakers of German or English are exempt from this obligation for their native language.

1.2 Occupational fields

The master program conveys the competence to work in a wide range of occupational fields and as free-lance psychologists based on scientific knowledge and methods. Graduates are qualified to work in fields requiring competence in work and organizational psychology such as in the human-resources field. They are qualified to offer diagnostic and consulting services in different fields – for example, in educational contexts such as in schools and in adult education. Graduates are equipped with the methodological competence and communication skills required for employment in marketing, data science, and public relations, among others. Another large field of employment open to graduates is academic and non-academic research both in basic and application-oriented research.

1.3 Study organization

The study contents are imparted via different teaching and learning formats. In the course of the master program, different formal enrolment requirements and modalities of verification of accomplishments need to be heeded.

1.3.1 Course Types

Lecture

A number of the courses of the master program are lectures. Lectures offer an integrated and consecutive presentation of basic and specialized psychological knowledge and methods. A lecture thereby serves a central function; it provides an overview of problems, procedures and results of a field of study.

Seminar

Seminars elaborate on the knowledge imparted in lectures. They enable students to engage in independent scientific activities and to engage deeply – alone or in groups – with a given topic. In a seminar, these deepened contents are not solely imparted by the teacher. Instead and in addition, students work out a given topic largely independently in small groups or on their own and present their results to the participants of the seminar in the form of an oral presentation. These presentations are in general followed by group discussions that offer opportunities for reflection and constructive criticism. In addition, a written assignment in the form of, for example, a written report, a scientific poster, or a learning protocol is regularly required. The cross-domain competencies that are usually fostered by seminars – such as analyzing, reflecting, discussing, and presenting – can only be successfully acquired in the group and under guidance so that seminars will usually require the students' in-person attendance. Besides lectures, seminars constitute a major part of curriculum of the master program.

Colloquium

In colloquia, current and completed master's theses as well as other current research projects are presented and discussed. Successful participation in a colloquium usually involves an oral presentation and a written elaboration on the part of the participants.

Lectures, seminars and colloquia are accompanied by the students' self-study. The scientific works required for self-study are available via the institute's library or the university library or in online formats.

1.3.2 Registration

There are different procedures of registration for participation in a course and for the associated course work (Studienleistung) and examination (Prüfungsleistung).

Participation in courses

For participation in lectures, seminars, and colloquia, enrolment in the course is required via the electronic campus management system (HISinOne) within the period prescribed. For students in higher semesters, enrolment usually takes place at the end of the lecture period of the preceding semester. Beginning students enroll in the first week of the lecture period. The exact dates of the enrolment period and details of the enrolment procedure can be found on the webpages of the master program in the section "university calendar (Vorlesungsverzeichnis)".

Examinations

For course-related examinations and course works (studienbegleitende Prüfungs- und Studienleistungen), separate registrations over and above the course enrolments are required via the electronic campus management system (HISinOne) within the prescribed period. The registration period is usually in the middle of the lecture period. The exact dates and details on the enrolment procedure can be found on the webpage of the examination office of the Institute for Psychology.

1.3.3 Examination Regulations and Assessment Types

The content and organization of studies are defined by the respective Subject-Specific Examination Regulations (Prüfungsordnung, PO) for each program and the General Examination Regulations (Rahmenordnung). The latter provide the overarching regulatory framework of a certain degree, in our case all Master of Science programs at the University of Freiburg. This Module Handbook has been compiled according to the Subject-Specific Examination Regulations 2022 for the Master of Science Psychology. They define all formal and legal aspects of this specific study program.

Generally speaking, students can complete a module/course in two ways: with an examination (Prüfungsleistung PL) and/or a course work (Studienleistung SL). Whether a course completes with a PL and/or SL is defined in the Subject-Specific Examination Regulations as well as further outlined in the module descriptions on the subsequent pages.

The ECTS points specified for the individual courses, modules, and other achievements are granted once all required course-related examinations and course works (PL and SL) have successfully been completed.

Course works (Studienleistung, SL)

Course works (Studienleistungen SL, pass/fail assessments) are individual written, oral, or practical works that are produced by students as part of a course. They can, for example, consist of regular participation (according to §13 (2) of the general Master of Science requirements and regulations) completed work sheets, written protocols, oral presentations, project work and teamwork. The extent

and kind of course work (SL) for each individual course is announced at the start of each course. Course works (SL) are evaluated, but usually not graded. For successful completion and recognition, the specified minimal requirements must have been satisfied. The evaluation of the course achievement is, however, not part of the final grade. Course works (SL) are a part of almost all courses. The course works (SL) are specified below for each course. For taking on the course work (SL) assignment, a registration (see above) is required.

Examinations (Prüfungsleistungen)

Modules or courses are examined concurrently within the module or course (studienbegleitend), respectively. Examinations (Prüfungsleistungen PL) are written works taking the form of a written monitored examination, written homework (essays, reports, exercises,…) or the master's thesis. In courses with a course-related examination, the kind of examination (PL) is specified at the start of the course. The examinations are organized and graded by the teacher or teachers of the module in the case of module-related examinations and by the teacher of the course in the case of course-related examinations. The grade becomes part of the final grade. For completing examinations (PLs), a registration is required within the prescribed registration period.

In courses that end with a course-related examination (PL), course-related course work (SL) must also be completed as a rule. ECTS points can only be granted if the module-related or course-related examination (PL) has been passed, and successful completion of the required course work (SL) has been verified. For each course and module, the examination (PL) requirements are specified below.

2 Module descriptions

Module	**Diagnostics and Assessment**		Module Responsible Krummenacher
Usability	M.Sc. Psychology		Module Code 03LE36MO-934-2023-1000
Duration	☒ 1 Semester	☐ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Lectures, 1 Seminar

	Type	SWS	Sem	ECTS
Diagnostics and Assessment I Principles and Models	V	1	1	2
Diagnostics and Assessment II Fields of Application	V	1	1	3
Diagnostics and Assessment III Diagnosis and Expert Reports	S	2	1	5

Qualification Goals

The module's goal is to provide knowledge and skills in psychodiagnostic procedures and their contextual conditions, both methodlogically and with a view to applications.

Subject Competencies:
Students will learn to develop and evaluate psycho-diagnostic instruments according to current test-theoretical models and to decide on the basis of scientific criteria which diagnostic tool is appropriate to apply in a given diagnostic context. They will be instructed how to provide and evaluate expert reports on diagnostic questions in different applied contexts, to take adequate account of ethical principles in writing expert reports, as well as to acknowledge and reflect on the limits of one's diagnostic competence and judgmental process.

Cross-cutting competencies:
Overarching competencies are acuqired through applied exercises in a range of different fields of psychological professional activity and by reflecting on the context and conditions of psychological testing practises and the writing of expert opinions.

Module Content

Module content:
The module contents focus on the diagnostic process, in particular on quality management and quality control in psychological diagnostics. It teaches the writing of expert reports, diagnostic models and methods, as well as methods of goal setting, design, composing, and presentation of expert reports. It further relays the selection and application of diagnostic instruments appropriate to the diagnostic question at hand and the interpretation and communication of diagnostic outcomes.

Course content:
Diagnostics and Assessment I: The diagnostic process; diagnostic models and methods. Principles of clinical diagnosis. Principles, quality criteria and exigensies of expert reports.
Diagnostics and Assessment II: Diagnosis and expert reports in different fields of application such as personal selection, educational processes, organizational diagnostics. Opportunities and limits of diagnostical instruments in these fields.
Seminar: Selection and application of psychodiagnostic procedures and tools. Writing of expert opinions. Interpretation and communication of diagnostic results.

Language

German

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams	SL: Regular participation, preparation of one lesson of the seminar based on given literature in consultation with the seminar leader. Design of the seminar lesson with the help of an oral presentation (10-30 minutes), moderation, one expert report, 10000-30000 characters incl. spaces (seminar). PL: Written exam 90 minutes duration (lectures).
Grade Composition	grade written exam (module exam)
Workload	Total Workload 300h: Attendance 60h, Self-Study 240h

Module	**Research Methods**		Module Responsible Klauer
Usability	M.Sc. Psychology		Module Code 03LE36MO-934-2023-2000
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

1 Lecture, 1 Seminar

	Type	SWS	Sem	ECTS
Multivariate Methods	V	2	1	5
Computational Modelling and Open Science	S	2	2	5

Qualification Goals

This module is divided into two courses that cover the planning, evaluation and interpretation of scientific research. While theoretical foundations are laid in the lecture, the accompanying seminar is designed to prepare students for the application and interpretation of scientific research.

Subject Competencies:
The content of the module should enable students to critically evaluate the results of psychological studies, to plan their own studies, and to analyze data they have collected themselves using multivariate procedures. In addition, students will learn to apply complex and multivariate data collection and analysis methods (such as structural equation modeling or hierarchical linear models).
The associated seminar enables students to explicate the roles that mathematical and statistical models play at multiple levels of data evaluation as well as to discuss the merits and limitations of different evaluation and modeling strategies with a focus on formal modeling of cognitive processes. Students will learn to evaluate and comply with open-science requirements in planning new research and in evaluating existing research.

Cross-cutting competencies: Acquisition of complex statistical analysis methods and statistical modeling. This will lay the foundations for planning one's own studies and for evaluating them, especially for research in cognitive psychology. In dealing with original literature, the appropriate and critical interpretation of scientific findings from a methodological perspective will be learned.

Module Content

Module content:
Students will be introduced to concepts and methods of complex statistical procedures, statistical modeling, and procedures of open science.
Course content:
In the course "Multivariate Methods" the variance analytical methods, including linear and logistic regression analysis, will be taught at an advanced level. In addition to structural equation models and hierarchical linear models, other standard multivariate methods (e.g. cluster analyses) are discussed. Basics of measurement theory will be covered in depth. In the accompanying seminar the definition and interpretation of mathematical and statistical models will be discussed. Over and above the acquisition of theoretical knowledge, the application of this knowledge to understand and evaluate research examples involving modeling is also a focus of the seminar. Another focus will be on the open science process.

Language

German

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams	SL: Regular participation, preparation of one lesson of the seminar based on given literature in consultation with the seminar leader. Design of the seminar lesson with the help of an oral presentation, of a poster, presentation (15-30 min), exercise parts for the seminar participants including moderation of the discussion. In addition, small project works are required in the seminar consisting of analyses of 3-7 assigned data sets by means of instructed methods (seminar). PL: Written exam 90 minutes duration (lecture).
Grade Composition	grade written exam (module exam)
Workload	Total Workload 300h: Attendance 60h, Self-Study 240h

Module	**Basic and Application-Oriented Psychological Science**	Module Responsible Kiesel
Usability	M.Sc. Psychology	Module Code 03LE36MO-934-2023-3000

Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

5 Lectures

	Type	SWS	Sem	ECTS
Cognitive Neuropsychology	V	1	1	2
Learning and Instruction	V	1	1	2
Cognition and Action	V	1	2	2
Economic Psychology	V	1	2	2
Higher Cognition	V	1	2	2

Qualification Goals

An important overall goal of these lectures is to enable the students to characterize the essentials of important fields of psychological research. On this basis, further courses and the research area of the master thesis can be selected for specialization.

Subject Competencies: The student can explain the major paradigms, theories, research approaches, and findings in important fields of psychological research both in areas that are devoted primarily to basic research for understanding the human mind (Cognitive Neuropsychology, Cognition and Action, Higher Cognition) and to use-inspired (basic) research (Learning and Instruction, Economic Psychology). In addition, they can explain the relations between the concepts and methods in the five single areas and they can apply concepts and methods learned in one area in the respective other areas.

Cross-cutting competencies: The student can critically evaluate theories, methods, and findings, also with respect to their interrelations, in research on psychological and related topics.

Module Content

Module content: The contents covers knowledge about major paradigms, theories, research approaches, and findings in the fields of neuropsychology, Learning and Instruction, Cogntion and Action, Economic Psychology, and Higher Cognition (for details see next paragraph).

Course content: The lecture Cognitive Neuropsychology gives an overview on the neural basis of essential cognitive functions and discusses how neurocognitive processes contributes to human experience and behavior in both adaptive and maladaptive ways. The lecture Learning and Instruction provides an overview of research on instruction (i.e., teaching and instructional design) and learning processes, with an emphasis on their interplay when determining learning outcomes. The lecture Cognition and Action provides an overview on current themes related to the interplay of cognition and action; it elaborates on basic cognitive functions such as attention, cognitive control, working memory and their impact on goal-setting and performance. The lecture Work and Organisational Psychology provides an overview of research on work and organizational issues, as well as on current sociotechnical challenges at work. The lecture Higher Cognition presents research on higher-level cognitive processing, with an emphasis on the fields of thinking and reasoning, memory, and social cognition. As preparatory work, students read selected text (passages) to close prior knowledge gaps and to gain additional prior knowledge so that they achieve deep understanding of the lectures' content (about 2 hours each week). As follow-up work, the students elaborate on the lectures' contents by reflecting on its (theoretical and practical) implications and by critically evaluating it (about 2 hours each week).

Language

Instructional language: English, examination language: English or German

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams	SL: Written assignment 500 words (essay or summery), (can be taken in one of the five lectures) PL: Written exam 90 minutes duration (all lectures)
Grade Composition	grade written exam (module exam)
Workload	Total Workload 300h: Attendance 75h, Self-Study 225h

Module	**Required Elective Modules**		Module Responsible Kiesel
Usability	M.Sc. Psychology		Module Code 03LE36KT-934-2023-4000
Duration	☐ 1 Semester	☒ 4 Semester	
Frequency	☒ half-yearly	☐ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

Required Elective Modules (four modules out of six eligible modules, with the constraint that at least one module has to be chosen the basic research focus area (BR) and from the application-oriented focus area (AO)):

Cognitive Neuropsychology (BR)
Learning and Instruction (AO)
Cognition and Action (BR)
Economic Psychology (AO)
Higher Cognition (BR)
Sustainability and Communication (AO)

Type	SWS	Sem	ECTS
S+S	2+2	1-4	4+4
S+S	2+2	1-4	4+4
S+S	2+2	1-4	4+4
S+S	2+2	1-4	4+4

Qualification Goals

The students are enabled to explain and critically evaluate the theories, methods, and findings in four selected areas that contribute to the individual qualification profile. The students acquire such qualifications in at least one area of basic research and of application-oriented research.
Subject Competencies: The specific competences differ between the single modules - see the respective optional required elective modules
Cross-cutting competencies: The specific cross-domain competences differ between the single modules - see the respective required elective modules

Module Content

As the specific competencies to be acquired differ between the single modules, the contents differ as well.
Module content: see the respective required elective modules
Course content: see the respective required elective modules

Language

See the respective required elective modules

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: see the respective required elective modules
PL: see the respective required elective modules (the examination is always part of the Seminar II in the respective modules)

Grade Composition

Mean of the grades on the four selected required elective modules

Workload

Total Workload 960h: how this work load is distributed to different activities see the respective required elective modules

Modulname	**Cognitive Neuropsychology**			Module Responsible Schönauer
Usability	M.Sc. Psychology			Modul Code 03LE36MO-934-2023-4010
Duration	☐ 1 Semester	☒ 2 Semester		
Frequency	☐ half-yearly	☒ yearly		
Module Type	☐ Required Module	☒ Required Elective Module		☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Cognitive Neuropsychology I	S	2	1-3	4
Cognitive Neuropsychology II	S	2	2-4	4

Qualification Goals

The aim of this module is to gain knowledge about the neurocognitive basis of basic and higher psychological functions, such as perception, learning and memory, or higher cognition, regarding a current research topic in Cognitive Neuropsychology.

Subject Competencies: The students will deepen their understanding of the neurocognitive basis of psychological functions supporting human experience and behavior, such as perception, learning and memory, higher cognition, or emotion, and will learn to apply this knowledge to related research areas or the clinical domain. They will critically evaluate how different experimental paradigms and brain imaging methods are applied in the field of Cognitive Neuropsychology. Critical reading and discussion of original research reports will allow students to assess suitable experimental approaches for their own research questions, specifically in neuroimaging and neurocognitive research, but also in other fields of psychology.

Cross-cutting competencies: By teaching about theories and findings in an interdisciplinary research field spanning Neuropsychology, Cognitive Neuroscience, Experimental and Systems Neuroscience, Computational Neuroscience, Neurology, the Learning Sciences, and clinical applications of neuropsychological research, the courses will lay the foundations for understanding the potential and challenges that come with interdisciplinary research.

Module content

Module content: The module teaches advanced knowledge of Cognitive Neuropsychology, and how neurocognitive processes can both adaptively and maladaptively regulate human experience and behavior. This includes discussion of findings from neighboring research areas, such as Cognitive Neuroscience, Experimental and Systems Neuroscience, Computational Neuroscience, Neurology, the Learning Sciences, and Clinical Applications.

Course content: In the seminars, students will discuss examplary theories, concepts and studies regarding the neural basis of essential psychological functions, and deepen their understanding of these topics by discussing relevant examples. They will further gain knowledge and skills in neuroimagining methods and analysis of neuropsychological and imaging data. The content of the seminars follows timely topics in the field of Cognitive Neuropsychology.

Language

English

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, preparation of one lesson of the seminar based on given literature in consultation with the seminar leader. Design of the seminar lesson with the help of an oral presentation (10-30 minutes), moderation. (seminar I and II)
PL: Written assignment, 10000-30000 characters incl. spaces (seminar II).

Grade Composition

grade written assignment (module exam)

Workload	Total Workload 240h: Attendance 60h, Self-Study 180h

Modulname	**Learning and Instruction**		Module Responsible Klauer
Usability	M.Sc. Psychology		Modul Code 03LE36MO-934-2023-4020
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Learning and Instruction I	S	2	1-3	4
Learning and Instruction II	S	2	2-4	4

Qualification Goals

An important overall goal of this module is to enable the students to apply the acquired knolwedge about the interplay between learning processes and instruction when trying to design or optimize instruction.

Subject Competencies: Overall, the students can explain how learning processes on the one hand and instruction (i.e., teaching and instructional design) on the other hand interact with respect to learning outcomes. They can identify widespread misconceptions about issues of learning and instruction. On this basis, they become able to evaluate teaching approaches and instructional designs (e.g., features of computer-based learning environments) and to optimize them.

Cross-cutting competencies: By the example of applying basic knowledge about learning and instruction to optimizing instruction, the students take into account the possibilities, but also the manifold barriers when applying basic psychological knowledge to practice problems.

Module content

Module content: The seminars deals with tried-and-tested models of learning and instruction and their interplay. This knowledge is applied to selected (parts of) learning environments.

Course content: Seminar I deals with important models of effective instruction and of self-regulated learning. In addition, the interplay between instruction and learning processes is discussed. Finally, the acquired knowledge is applied to the evaluation of specific materials (e.g. practice tests, instructional videos). Seminar II deepens the theoretical knowledge about teaching and learning with respect to specific instructional design aspects (e.g., related to animations, multi-media presentations); this knowledge is applied to improve instructional designs.

Language

Instructional language: English, examination language: English or German

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, preparatory work for seminar session such as reading (typically 1-2) texts (Seminar I and II), follow-up assignments of seminar sessions such as applying acquired to analyze or solve problems (seminar I and II)
PL: Written assignment, 10000-30000 characters incl. spaces (seminar II)

Grade Composition

grade written assignment (seminar II)

Workload

Total Workload 240h: Attendance 60h, Self-Study 180h

Modulname	**Cognition and Action**		Module Responsible Kiesel
Usability	M.Sc. Psychology		Modul Code 03LE36MO-934-2023-4030
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Cognition and Action I	S	2	1-3	4
Cognition and Action II	S	2	2-4	4

Qualification Goals

This module enables students to understand current theorizing, experimental paradigms, and statistical analyses regarding research topics in cognitive psychology with a focus on cognition and action and its potential societal implications.

Subject Competencies: Theoretical knowledge as well as insights in experimental paradigms and practical understanding of current topics in cognitive psychology.

Cross-cutting competencies: Reading and presenting scientific studies, assessing the suitability of research paradigms and statistical analyses, understanding the potentials and limitations of experimental research for providing societally meaningful empirical evidence, scientific writing.

Module content

Module content: Both seminars focus on a major topic from a current research area in cognitive psychology. In each seminar, theoretical concepts, key experimental paradigms and findings, as well as potential societal implications will be presented and critically discussed.

Course content: Current research topics in the area of cognitive psychology focussing on motivation, control, perception, or experience of human action.

Language

English or German

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, preparation of one lesson of the seminar based on given literature in consultation with the seminar leader. Design of the seminar lesson with the help of an oral presentation (10-30 minutes), moderation. (seminar I and II)
PL: Written assignment, 10000-30000 characters incl. spaces (seminar II)

Grade Composition

grade written assignment (Seminar II)

Workload

Total Workload 240h: Attendance 60h, Self-Study 180h

Module	**Economic Psychology**		Module Responsible Langer
Usability	M.Sc. Psychology		Modul Code 03LE36MO-934-2023-4040
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Work and Organisational Psychology I	S	2	1-3	4
Work and Organisational Psychology II	S	2	2-4	4

Qualification Goals

Subject Competencies: In-depth knowledge and competencies in selected areas of economic psychology (e.g. work and health, personnel psychology, human factors, decision-making). Students will be able to analyze psychological aspects of workers and teams in sociotechnical environments based on an integration of theory, practice, as well as interdisciplinary perspectives. Considering the context of application, students will acquire knowledge about theoretical foundations,methodological approaches and diagnostic procedures, evidence-based practice concepts and interventions and their evaluation based on economic psychology.

Cross-cutting competencies: Acquisition of evidence-based methods for diagnostics and interventions in the work-place. This will lay the foundations for planning assessment centers, trainings, technology design, and other interventions, especially in the context of economic psychology. In dealing with original theories and findings, students will acquire a deeper understanding of the possibilities and limits of applying scientific findings in practice. They will gain interdisciplinary insights from fields relevant to economic psychology (e.g., computer science) as well as competencies in the preparation of scientific results for different target groups (e.g. research, management).

Module content

Module content: Theories, concepts, findings and interventions in economic psychology and the methods used to obtain and examine them are explored in depth. Current research findings will be addressed as well as recent developments in the professional field of psychologists in the economic sector (including NPO) will be critically appraised.

Course content: The seminars are differentiated by their focus on application-oriented (Work and Organisational Psychology I) and research-oriented (Work and Organisational Psychology II) topics.

Language

Work and Organisational Psychology I: German, Work and Organisational Psychology II: English

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, fulfillment of weekly regular assignments (e.g., reading, preparing discussions, mini-projects) during the semester (seminar II) or completing a practice project (e.g., a training, developing design implications for technology) (seminar I)
PL: Written assignment, 10000-30000 characters incl. spaces (seminar II)

Grade Composition

grade written assignment (seminar II)

Workload	Total Workload 240h: Attendance 60h, Self-Study 180h

Module	**Higher Cognition**		Module Responsible Klauer
Usability	M.Sc. Psychology		Module Code 03LE36MO-934-2023-4050
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Higher Cognition I	S	2	1-3	4
Higher Cognition II	S	2	2-4	4

Qualification Goals

The module introduces participants to research topics spanning the fields of cognitive psychology, social psychology and mathematical psychology.

Subject Competencies: The participants acquire the ability to evaluate theories, concepts, and research methods of research on “higher” human abilities, with an emphasis on the fields thinking and reasoning, memory, and social cognition. They will acquire the ability to apply the theories to different research questions and assess the suitability of major methodological approaches for collecting evidence on the research questions. They are enabled to conduct their own literature searches and design appropriate empirical studies. Participants will also learn to name and explain current discussions and controversies in these fields and of the methods of mathematical and computational modeling as applied in these domains.

Cross-cutting competencies: Participants acquire an advanced understanding of the research process, especially in regard to the role of critical discussions and controversies in the knowledge-generation process. Moreover, participants will deepen their skills in the critical reading of scientific reports and in the integration of different scientific texts, they will acquire competence in working as a team in the joint explication of theories and research methods and of their potentials for applications.

Module content

Module content: The seminars will present in an exemplary fashion, theories, concepts and studies in thinking and reasoning research, memory research, and social-cognition research. Examples of topics to be treated comprise dual-process theories of reasoning, mathematical models of recognition memory, and the theory of implicit measures of attitudes in social cognition. The seminars will as a rule concern topics in which the lecturer is especially competent, sharing insights into the history and development of current research programmes in the field.

Course content: The contents of the individual seminars correspond to current research fields in the domains of thinking and reasoning, memory, and social cognition.

Language

Instructional language: English; Examination language: German or English

Prerequisites for Attendance

None

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, preparation of one lesson of the seminar based on given literature in consultation with the seminar leader. Design of the seminar lesson with the help of a presentation (15-30 min) including moderation of the discussion (seminar I and II).
PL: Written assignment, 10000-30000 characters incl. spaces (seminar II).

Grade Composition	grade written assignment or protocol (seminar II)
Workload	Total Workload 240h: Attendance 60h, Self-Study 180h

Module	**Sustainability and Communication**			Module Responsible Kiesel
Usability	M.Sc. Psychology			Module Code 03LE36MO-934-2023-4060
Duration	☐ 1 Semester	☒ 2 Semester		
Frequency	☐ half-yearly	☒ yearly		
Module Type	☐ Required Module	☒ Required Elective Module		☐ Elective Module

Teaching and Learning Methods

2 Seminare

	Type	SWS	Sem	ECTS
Sustainability and Communication I	S	2	1-3	4
Sustainability and Communication II	S	2	2-4	4

Qualification Goals

The climate crisis requires a joint effort of different scientific disciplines to reduce the human impact in the Anthropocene. Psychological models on intention, behavior as well as educational psychology and communication strategies might contribute to this main goal.

Subject Competencies:
Students learn to apply theories on motivation, behavioral change, science communication, and complex systems when analyzing complex information and making recommendations. They can use research methods of sustainability research and instructional psychology for understanding and fostering sustainable behavior.

Cross-cutting competencies:
They learn to transfer psychological knowledge and methods to address specific problems in different areas.

Module content

Module content: Current psychological knowledge will be evaluated regarding its potential to communicate scientific knowledge to a non-expert audience and to address specific behavioural aspects towards more sustainable behaviour.

Course content: Both seminars combine basic research and application-oriented approaches to understanding the potential and barriers of human change. One Seminar focusses on research on cognitive psychology to deepen the psychological understanding of the climate crisis and to develop psychological programs of change. The other Seminar has a focus on effective science communication, covering key principles and formats to enable students to create and present communication strategies on sustainability and future workplace technology.

Language

English or German

Prerequisites for Attendance

none

Prerequisites for Pass/Fall and Grad Exams

SL: Regular participation, working on 5-7 assignments such as designing instructional content or writen practice recommendation of 10000-30000 characters or designing and presenting research plans (2 oral and poster presentations of 15-30 min). The type is defined by the chosen thematic focus in coordination with the seminar leader (seminar I and II)
PL: Written assignment, 10000-30000 characters incl. spaces (the students decide in which of the two seminars they assign for the PL, this is then termed seminar II, whereby order of seminars is arbitrary)

Grade Composition

grade written assignment (seminar II).

Workload

Total Workload 240h: Attendance 60h, Self-Study 180h

Module	**Skills / Project Oriented Learning**	Module Responsible Kiesel
Usability	M.Sc. Psychology	Module Code 03Le36MO-934-2023-5000

Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☒ half-yearly	☐ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminars

	Type	SWS	Sem	ECTS
Skill – Project Oriented Learning I	S	2	2	4
Skill – Project Oriented Learning II	S	2	3	4

Qualification Goals

In this module, students choose individual skills they aim to acquire to build an individual portfolio. The respective skill is trained in the form of a practical project work.

Subject Competencies:
Students choose specific skills from a catalogue involving research methods, skills related to open science, data security or ethics in psychological research, science communication and outreach, scientific writing, scientific teaching, and application of psychological knowledge in coaching and organizational contexts.

Cross-cutting competencies:
Development of an individual portfolio according to specific strengths and interests.

Module content

Module content: Support and supervision of specific projects to develop and train the respective skills. Guidance and coaching to detect individual strength and interests

Course content: The seminars are project-related and focus on mentoring and supervision to develop own skills.

Language

German or English

Prerequisites for Attendance

none

Prerequisites for Pass/Fall and Grad Exams

SL: Working on four elective assignments (two assignments per seminar; see skill catalogue). Each skill requires self-organized work an the respective project. The project work is documented in suitable form (e.g. as written code, video or podcast on science communication, written recommendation)
PL: none

Grade Composition

not graded

Workload

Total Workload 240h: Attendance 60h, Self-Study 180h

Module	**Internship**		Module Responsible Schönauer
Usability	M.Sc. Psychology		Modul Code 03LE36MO-934-2023-6000
Duration	☒ 1 Semester	☐ 2 Semester	
Frequency	☐ half-yearly	☒ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

Internship

Type	SWS	Sem	ECTS
Internship		1-2	10

Qualification Goals

Subject Competencies: In the internship, students gain an insight into fields of activity with a psychological focus. They acquire knowledge about the tasks of the organizations in which the internship activities are completed, as well as about the structure of the respective work processes. Furthermore, they obtain initial experience in teamwork and with managers in a vocational environment. They develop perspectives for further study and later professional activity.

Cross-cutting competencies: By reflecting on how their practical activities and experiences relate to theories and findings in different fields of psychology, students will learn to apply the content of their study program in real-world practical scenarios. They can further develop self-management and time-management skills in a practical working environment.

Module content

Module content:
The vocational internship is completed at organizations whose fields of activity have clearly recognizable connections to the study content and professional fields of psychology. Here, students get to know one or more internship institutions (structure, organizational structure, products and services, areas of responsibility; employees and clients/customers). The total duration of internship activities is equivalent to 300 hours. The internship usually takes place during the lecture-free period. It is completed without interruptions, as one continuos practical training phase. The internship can be completed in Germany or abroad.

Language

German or English

Prerequisites for Attendance

Prior to starting the internship, students must obtain approval from the Examination Committee. The internship has to be successfully completed before the admission to the master's thesis.

Prerequisites for Pass/Fall and Grad Exams

SL: Internship certificate

Grade Composition

not graded

Workload

Total Workload 300h: Attendance 270h, Self-Study 30h

Module	**Interdisciplinary Studies**		Module Responsible Schönauer
Usability	M.Sc. Psychology		Module Code 03LE36MO-934-2023-7000
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☒ half-yearly	☐ yearly	
Module Type	☐ Required Module	☒ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

Lecture, Tutorial, or Seminar

Any kind of course can be attended. It is possible to acquire 6 ECTS points in a single course, or in more than one courses, from one or from multiple fields.

Type	SWS	Sem	ECTS
		1-4	6

Qualification Goals

Cross-cutting competencies: The students will acquire interdisciplinary knowledge and knowledge from outside of their training discipline based on their individual preferences and needs, with specific regard to their future field of expertise. This will allow them to gain a deeper understanding of how psychological research and theory relates to other fields of study and enable them to translate their knowledge.

Module content

Module content:
Determined and indicated by elected subject.

Courses can be elected in the subjects Biology, Learning Sciences, Computer Sciences, Cognitive Science, Criminology, Neurolinguistics, Philosophy, Sociology, Sports Science, Economic Science without seeking consent from the examination office. If the student seeks to elect a course from an area outside of those listed, they should contact the examination office in advance.

In certain cases, a registration subject to rules of the respective faculty or teacher/tutor may be necessary.

Language

German or English

Prerequisites for Attendance

none

Prerequisites for Pass/Fall and Grad Exams

SL: determined by elected subject

Grade Composition

not graded

Workload

Total Workload 180h: Attendance 60h, Self-Study 120h. Attending and self-study times can deviate from this. Allocation of ECTS to attending and self-study times determined by elected subject.

Module	**Master‘s Module**		Module Responsible Klauer
Usability	M.Sc. Psychology		Module Code 03LE36MO-934-2023-8000
Duration	☐ 1 Semester	☒ 2 Semester	
Frequency	☒ half-yearly	☐ yearly	
Module Type	☒ Required Module	☐ Required Elective Module	☐ Elective Module

Teaching and Learning Methods

2 Seminare, 1 Thesis

	Type	SWS	Sem	ECTS
Colloquium I	K	2	3-4	2
Colloquium II	K	2	3-4	2
Master’s Thesis			3-4	30

Qualification Goals

The goal of the module is to enable participants to devise and manage research projects. This includes learning to evaluate existing research projects and to develop and conduct a research project presented in the master’s thesis.

Subject Competencies:
Students acquire the ability to assess theories and concepts of selected areas of cognitive, instructional, or economic psychology. They learn to apply advanced psychological research methods by means of examples of current research projects. They learn to manage research projects at all stages of the research process, from design to the interpretation of empirical results, including knowledge of and adherence to open science guidelines. They are enabled to present and publicly defend psychological research results.

Within a period of six months, students acquire the skills to develop a well-defined research project on a psychological research question, work on it using scientific methods and write it up. This includes formulating a research question, researching the relevant literature, selecting the appropriate research method, collecting and analyzing data, and interpreting the results.

Cross-cutting competencies: Critical and reflected assessment of scientific results and the procedures by which these are won. Ability to critically discuss the strength and weaknesses of different research procedures. They apply theses skills in conducting independent research projects. They learn to present scientific results and to argue scientifically. This includes the ability to discuss research questions and projects in a team, and to cope with critique in a scientific setting in a constructive and deliberated manner.

Module content

Module content: In the module, research results and methods in cognitive, instructional, and economic psychology are presented and discussed in colloquia. The discussed research includes research from the participants‘ master theses, PhD projects and externally funded research projects of the participating departments as well as research projects by invited guests. These provide role models enabling participants to get to know and discuss excellent research projects, their goals, the derivation of research questions, the methodological design, the implementation, analysis, interpretation, and the publication process.

Course content: The above contents will be distributed across the two colloquia. In the third-semester seminar, students will also present the design of the research of their master thesis for general discussion; in the fourth-semester seminar, they will present results of the master thesis for general discussion.

The master's thesis is a written exam on a defined topic from the field of psychology. The topic of the master's thesis is determined by the supervisor in accordance with the candidate. Topics from any field of psychology can be chosen.

Language

Instructional language: English; Examination language: German or English

Prerequisites for Attendance	Passed modules Research Methods, Basic and Application-Oriented Psychological Science I and Internship and minimum 54 ECTS points.
Prerequisites for Pass/Fall and Grad Exams	SL: Regular participation, presentation of design paper (30-45 minutes; WiSe, Colloquium I) and results paper (30-45 minutes; SoSe, Colloquium II). PL: Written assignment (homework assignment, written elaboration of own oral presentation, or written review of another paper presented in the seminar 10000 - 30000 characters incl. spaces (SoSe, Colloquium II). PL: Written thesis of 30.000 to 200000 characters incl. footnotes or endnotes, and spaces, excl. bibliography and annexes in the format of a journal paper or monograph (Master's Thesis).
Grade Composition	Mean of the grades on written assignment and master's thesis weighted according to ECTS points.
Workload	Total Workload 1020h: Attendance 60h, Self-Study 960h

3 Catalogue of Skills (examples)

(4 Skills à 2 ECTS / 60 h need to be delivered with a total workload of 240 h, which includes 60 h attendance in the two skills seminars)

Research Methods

- Simulation study
- Multivariate data analysis
- Modeling
- Graphics and visualization of data
- Programming of experiments or analyses
- Meta-analysis and quantitative reviews
- Recruitment (e.g.. Crowdsources, panels, new channels, etc.)
- Design of tests and procedures (construction of questionnaires, non-reactive procedures)
- Design experimental materials
- Literature search on own research question and derivation of appropriate study design
- Compilation of table of differences in operationalizations, study design, etc. in studies on the same research question
- Qualitative content analysis
- Comprehensive literature search on broader research topic

Open Science

- Replicability – constructive critique of studies
- Version control (code and data)
- Preregistration (study, meta-analysis)
- Data handling and sharing
- Research ethics - Evaluation of study with regard to ethical principles (APA ethics)
- Data protection, elaboration of related aspects for an extant or planned study
- Ethics proposal for submission to an ethics committee

Science Communication and Outreach

- Radio/television contribution in collaboration with media centre
- Press release
- Podcast
- Audience-design-projects: E.g., two podcasts on the same topic for two different target populations
- Guidelines for application-oriented questions (e.g., how to integrate images in texts, conditions of productive team work)
- Giving an interview on a scientific question (including preparatory literature research and synthesis, practice, etc.)
- Wikipage
- Article in popular journal
- Condense meta-analysis into a short review (e.g. for education clearinghouses for educational instructors)
- Participation in Citizen-Science projects

Scientific writing and working

- Conference presentation
- Design and presentation of poster (if possible on real conference)
- Design of complex data or results graphics
- Composition of research proposal
- Writing of (parts of) a scientific journal article
- Scientific translation

- Audience design-projects: Two intros (first 1.5 pages) of a study report for two different journals or two abstracts for two different conferences
- Peer reviewing
- Small study from A to Z

Teaching

- Mentoring for bachelor groups
- Catalogue of exam questions/quiz for a given topic
- Explanatory video on a scientific articles/effect
- Preparing Freibär report (evaluation of the process of preparing bachelor theses in different departments)
- Consulting on and correcting of student projects and reports
- Commenting on bachelor theses
- Design and offer course(s)
- Prepare slides and other visual aids for oral presentations
- Design or improve teaching materials

Application/Coaching

- Design an intervention
- Evaluation of interventions
- Project on organizational diagnostic
- Project on organizational development (e.g., consultation)
- Mentor in internal mentoring programme – report on experiences and collaboration in organization and conceptualization of the programme