Course Guide – Master Cognitive Science

Summer 2020

Last update 22.04.2020

Enrollment for Courses and Further Information

IMPORTANT: THE SUMMER TERM STARTS ON 20.04.2020. PLEASE CONSULT ECAMPUS FOR UP-TO-DATE INFORMATION REGARDING THE COURSE FORMAT, STARTING DATES AND FURTHER DETAILS.

Students are requested to register with the university's **eCampus**-system and should be aware of the deadlines. Exceptions include the courses in neuroinformatics, e.g. held by Wiskott and Schöner. Here, there will be **no eCampus registration**, but a manual enrollment in the first session.

Please notice that one and the same course can only be used to be part of one module for each student. Double use of the same course is not allowed.

Essay Writing Course in Philosophy:

For all students who did not study philosophy during the BA program but need to learn how to write an essay or still feel insecure about it, we recommend in the summer term the seminar of Alfredo Vernazzani "Philosophy of Perception". It can be evaluated as C2 or AM1. For students who studied philosophy during the BA program, this course can only count for the C2 module.

FIRST YEAR PROGRAM

C1. Social Cognition & Meta-Science

BLOCKSEMINAR

SOCIAL PSYCHOLOGY OF PREJUDICE

(112314)

LUSINE GRIGORYAN

TERM: Summer 2020

MEETING TIME: Preliminary Meeting: Wednesday 15.04., 14.00-16.00
Saturday 06.06., 9.30-18.30
Saturday 13.06., 9.30-18.30

ROOM: IA 1/161

CP: 3

This seminar aims to provide an overview of psychological approaches to prejudice. We will discuss cognitive underpinnings of prejudice and why some individuals are more prejudiced than others. We will delve into theories of intergroup relations to understand why racism, sexism, and other forms of prejudice and discrimination are so persistent. Finally, we will debate some important and unresolved issues in the field of intergroup relations and prejudice. Please notice that the number of participants for this course is highly limited.

C1.

Social Cognition & Meta-Science

SEMINAR

SELF, NARRATIVE AND EMBODIMENT: PHILOSOPHICAL THEORIES AND THEIR PSYCHOLOGICAL FOUNDATIONS
(030092)

DR. ROY DINGS

TERM:	Summer 2020
LECTURE:	Wednesday, 14.00-16.00 (first meeting 08.04.2020)
ROOM:	GABF 04/716
CP:	6

The self is a central concept in philosophy and cognitive science. However, in the last few decades there have been dozens of different conceptualizations and theories on what the self entails or consists of.
In this course we will investigate two of the most important views on selfhood: the narrative self and the embodied self. In the first part of the course we will read and critically evaluate recent texts on both the embodied self and the narrative self, both from philosophy and cognitive science. In the second part of the course we shift the focus towards integrating these perspectives. That is, narrative selves are also embodied, so how could we integrate recent theoretical and empirical work on these two self-aspects? To get a better understanding of the problem at hand, we begin by looking at some cases where bodily selves and narrative selves tend to be discussed separately (i.e. non-integrated), such as research on memory and clinical cases in psychiatry. After that we turn towards possible solutions and look at recent work that highlights the integration between embodied selves and narrative selves. In particular we will investigate so called 'pattern theory approaches' to selfhood.

Please notice that there is a colloquium with external speaker on self-consciousness, namely colloquium I1 (Newen, Crone). It is highly recommended to combine this course with the colloquium I1 (Newen, Crone) or at least to join the external talks concerning the self since it enables an intense study of self-consciousness. For information about these talks (if you do not follow I1 colloquium) please send an email to: sekretariat-newen@rub.de

C1.

Social Cognition & Meta-Science

LECTURE OR SEMINAR
GENERAL PHILOSOPHY OF SCIENCE (030005)
SPECIAL TOPICS IN PHILOSOPHY OF SCIENCE (030097)
PROF. JAN BAEDKE

TERM:	Summer 2020
LECTURE:	Thursday, 14.00-16.00, HZO 100 (first meeting 09.04.2020)
SEMINAR:	Thursday, 10.00-12.00, GABF 04/358 (first meeting 09.04.2020)
CP:	6 (for one course)

You can choose only one of the two courses (Lecture or Seminar) but not both together!

Lecture: Philosophy of science reflects on the foundations, methods and aims of science. General philosophy of science includes further subjects like patterns of the historical development and the social structure of science. In the closer sense, it can be retraced continuously from the ancient world until present. Several disciplinary terms (such as “philosophy of mathematics” or later “philosophy of physics” and “philosophy of biology”) have been developed not until the 18th century and reflect the increasing significance of specific scientific knowledge for modern philosophy. The lecture gives an overview over the present status of general philosophy of science. It deals, on the one hand, with problems of methods and certain key concepts (such as “explanation” and “understanding”); on the other hand, it examines questions that focus on the significance of the historicity of scientific knowledge for the present sciences.

The language of the lecture will be English unless all participants are German-speaking. You will be informed about modalities concerning credits in the first session of the lecture.

Seminar: Besides logic, epistemology and philosophy of language, philosophy of science is one of the core disciplines of theoretical philosophy. This seminar belongs to the lecture “General Philosophy of Science”; further information on the subjects are given there. The seminar extends and deepens special topics the lecture deals with. Therefore, this seminar is recommended for students who already have basic knowledge in Philosophy of Science.

The language of the course will be English. Please consult the online description of the lecture for introductory literature. You will be informed about modalities concerning credits in the first session of the seminar.

C2.

Perception & Action

LECTURE & EXERCISE

AUTONOMOUS ROBOTICS: ACTION, PERCEPTION, AND COGNITION (310501 & 310511)

PROF. GREGOR SCHÖNER

TERM:	Summer 2020
LECTURE:	Thursday, 14.15 – 16.00 (first meeting: 16.04.2020)
EXERCISE:	Thursday, 16.15 – 17.00 (first meeting: 23.04.2020)
ROOM:	NB 3/57
CP:	6

Neuroinformatics is concerned with the discovery of new solutions to technical problems of information processing. These solutions are sought based on analogies with nervous systems and the behaviour of organisms. This course focuses on three exemplary problems to illustrate this approach:
(a) Artificial action (autonomous robotics);
(b) Artificial perception (robot vision);
(c) Artificial cognition (simplest cognitive capabilities of autonomous robots such as decision making, memory, behavioural organization). The main methodological emphasis is on nonlinear dynamical systems' approaches and dynamic (neural) fields.

C2.

Perception & Action

ESSAY WRITING SEMINAR

PHILOSOPHY OF PERCEPTION:
WILFRID SELLARS AND THE MYTH OF THE GIVEN
(030090)

DR. ALFREDO VERNAZZANI

TERM: Summer 2020
MEETING TIME: Tuesday, 10.00 – 12.00 (First Meeting: 07.04.2019)
ROOM: GA 04/358
CP: 6

This is an Essay Writing Course in Philosophy:

For all students who did not study philosophy during the BA program but need to learn how to write an essay or still feel insecure about it, we recommend in the summer term the seminar of Alfredo Vernazzani "Philosophy of Perception". It can be evaluated as C2 or AM1. For students who studied philosophy during the BA program, this course can only count for the C2 module. Details about the demands are clarified in the first meeting.

The Content:

Wilfrid Sellars (1912 – 1989) stands out as one of the most important philosophers of the 20th century. In his work, he sought to formulate a «scientifically oriented, naturalistic realism which would 'save the appearances'» ("Autobiographical Reflections" 1973). Philosophers like John McDowell, Robert Brandom, Jay Rosenberg, Danielle Macbeth, Paul and Patricia S. Churchland, Richard Rorty, and many others have been influenced by his work. Among his papers, the most influential one has been his "Empiricism and the Philosophy of Mind" (EPM) (1956) where Sellars attacked the 'Myth of the Given', touching on issues such as the nature of perceptual experience, epistemology of perception, and the philosophy of language. In this seminar, we will read, comment, and contextualize EPM.
For an overview of Sellars' philosophy, I recommend deVries' (2016) entry "Wilfrid Sellars" in the *Stanford Encyclopedia of Philosophy*: https://plato.stanford.edu/entries/sellars/

Literature:

I recommend buying the following edition of Sellars' EPM:
Wilfrid Sellars (1997) *Empiricism and the Philosophy of Mind*. Cambridge, MA: Harvard University Press. With an Introduction by Richard Rorty, and a study guide by Robert Brandom.

Additional material will be made available on Moodle.

C2.

Perception & Action

SEMINAR

PSYCHOLOGY AND NEUROSCIENCE OF LEARNING: ANOTHER LOOK AT ASSOCIATIVE LEARNING

(119002)

DR. HIROSHI MATSUI

TERM: Summer 2020
MEETING TIME: Friday, 10.00 – 12.00 (First Meeting: 17.04.2020)
ROOM: IA 02/460
CP: 3 CP

Associative learning has a long tradition to develop experimental procedure of psychology and neuroscience and explore the mechanisms of learning of behavior, but it has been sometimes underestimated its power and regarded as merely a “kill-joy” hypothesis of cognition. The course is intended to renew our view of associative learning to a modern concept, which is not necessarily conflict against cognitive science. We start very basics of learning psychology, and thus, prerequisite knowledge would be minimal. However, we would eventually learn modern view of associative learning and how it is applied to investigate and explain various phenomena including neural basis of learning, psychiatry, and even consciousness.

C3.

Memory, Learning & Decision Making

LECTURE & EXERCISE
COMPUTATIONAL NEUROSCIENCE: VISION AND MEMORY
(310504 & 310514)
PROF. LAURENZ WISKOTT

TERM:	Summer 2020
LECTURE:	Tuesday, 12.15 – 13.45 (First Meeting: 07.04.2020)
EXERCISE:	Tuesday, 9:00 – 12:00 (First Meeting: 14.04.2020)
ROOM:	NB 3/57 (both, lecture & exercise)
CP:	6

This lecture presents models of self-organization in neural systems, in particular addressing vision (receptive fields, neural maps, invariances, attention) and associative memory (Hopfield network).

C3.

Memory, Learning & Decision Making

SEMINAR
DISKURS ENGRAMM
(118163)
PROF. NIKOLAI AXMACHER

TERM:	Summer 2020
LECTURE:	Thursday, 10.00 – 12.00 (First Meeting: 09.04.2020)
ROOM:	IB 6/127
CP:	3 CP

The representation of specific contents in memory is called “engram”. Though for a long time it was not possible to measure the engrams directly, a few years ago using the newest experimental methods researchers had a major breakthrough by experiments with rodents. Can engrams be measured in humans as well with fMRT or EEG, e.g. using multivariate pattern classification methods? This current research question will be discussed based on selected articles.

C3.

Memory, Learning & Decision Making

SEMINAR
MEMORY AND IMAGINATION
(030088)
PROF. MARKUS WERNING

TERM: Summer 2020
MEETING TIME: Wednesday, 12.00 – 14.00, First Meeting: 08.04.2019
ROOM: GA 04/187
CP: 6

The Philosophy of Memory can be trace backed as early as Plato who postulated memory traces by likening memory to the imprints of sense impressions on a wax tablet. The current philosophical debate on memory is dominated by two camps. On one side, we face the Causal Theory that holds on to the idea that remembering requires a memory trace that causally links the event of remembering to the event of perception and carries over representational content from the content of perception to the content of remembering (Bernecker, 2010; Martin & Deutscher, 1966). On the other side, a new camp of Simulationists is currently forming up, spearheaded by Michaelian (2016) and Addis (2018). They argue that remembering is nothing, but a specific form of imagination, and differs from hypothetical, counterfactual, future and fictitious imagination only in that it has been reliably produced and is directed towards an episode of one's personal past. The question thus arises whether episodic memory is at all distinct in kind from imagination. As a third option, Werning (2020) has developed an account of minimal traces devoid of representational content. He exploits an analogy to a predictive processing framework of perception. The resulting notion of episodic memory can be validated as a natural kind distinct from mere imaginary processes (Cheng & Werning, 2016).

The seminar will provide an overview of the current research literature on memory and imagination, in philosophy, psychology and neuroscience. Students will have the opportunity to link up with our DFG research group "Constructing Scenarios of the Past". Aside from active participation, participants will be expected to give a presentation in English. Assistance regarding the English language will be provided.

Literature:

Addis, D. R. (2018). Are episodic memories special? On the sameness of remembered and imagined event simulation. *Journal of the Royal Society of New Zealand*. doi:10.1080/03036758.2018.1439071

Bernecker, S. (2010). *Memory : a philosophical study*. Oxford University Press.

Cheng, S., & Werning, M. (2016). What is Episodic Memory if it is a Natural Kind? *Synthese*, *193*, 1345–1385.

Martin, C. B., & Deutscher, M. (1966). Remembering. *Philosophical Review*, *75*, 161.

Michaelian, K. (2016). *Mental Time Travel: Episodic Memory and Our Knowledge of the Personal Past*. Cambrdige, MA: MIT Press.

Werning, M. (2020). Neither Preservation, nor Imagination: Episodic Memory as a "Prediction of the Past" from Minimal Traces. *Review of Philosophy and Psychology*, *accepted*.

C3.

Memory, Learning & Decision Making

SEMINAR

DISKURS MEMORY & SPATIAL NAVIGATION (118164)

ANNE BIERBRAUER

TERM: Summer 2020
MEETING TIME: Tuesday, 14.00 – 16.00, First Meeting: 07.04.2020
ROOM: IA 1/157
CP: 3 CP

In this seminar, we read and discuss early and recent literature on spatial navigation and memory in order to see how the topics relate to each other. One focus of the seminar is the comparison of different methodological approaches in cognitive neuroscience (studies in animals and humans, electrophysiology and fMRI, univariate and multivariate analyses).

Please notice that the number of participants for this course is highly limited.

C4.

Language, Logic & Categories

BLOCKSEMINAR
LOGIC AND ARTIFICIAL INTELLIGENCE
(030093)
JUN.-PROF. DR. CHRISTIAN STRASSER

TERM: Summer 2020
MEETING TIME: TBA (2-3 blocks on Fridays)
ROOM: TBA
CP: 6

Ideally, the information on the basis of which we make an inference is both complete and consistent: it is conflict-free, and it contains everything that is relevant. In practice, it is often impossible to meet this standard. Decisions need to be made on the basis of the information at hand, and this set of information is often incomplete and/or inconsistent. The resulting inferences are defeasible: they are drawn tentatively, and are open to retraction in the light of further information. Examples of defeasible reasoning are numerous: inductive generalizations, inference to the best explanation, inferences on the basis of expert opinions, reasoning in the presence of inconsistencies, reasoning with priorities, etc. In our everyday practice, as in the practice of experts (e.g. medical diagnosis) or scientists, defeasible inferences are abundant.
Since the late 1970s we see a central interest in the discipline of Artificial Intelligence in logical models of defeasible inference. The field of non-monotonic logic covers a variety of formalisms devised to capture and represent defeasible reasoning patterns. Informally, a logic is non-monotonic if under the addition of new premises we may lose some of our previous consequences.
This course will focus on several of the key formalisms of non-monotonic logic (such as default logic, preferential semantics, logic programming and formal argumentation theory, see https://plato.stanford.edu/entries/logic-nonmonotonic/ for an overview). The course will be organized in different blocks, each devoted to one family of systems. Each block will consist of both theoretical units and exercises.

Students will have the opportunity to give presentations on research papers, to write an exam, and to submit essays.

The exact timing of the blocks will be agreed upon in an initial meeting.

C4.

Language, Logic & Categories

SEMINAR

CONCEPTUAL AND EMPIRICAL APPROACHES TO REASONING (030091)

DR. MATTHIAS UNTERHUBER

TERM: Summer 2020
MEETING TIME: Monday, 12.00 – 14.00 (First Meeting: 06.04.2020)
ROOM: GABF 04/187
CP: 6

The study of reasoning – which is closely related to thinking and problem solving – is an integral part of cognitive science. This seminar focuses on central paradigms in this area (e.g., the Wason selection task and the conditional inference task) and discusses recent approaches to these phenomena. The course relies on conceptual analyses, theoretical models, and empirical investigations related to reasoning. The discussion includes linguistic and philosophical issues, such as semantics for indicative and counterfactual conditionals, as well as approaches from psychology, such as mental model theory. Furthermore, students with a bachelor or master thesis project with a focus on reasoning (broadly construed) will have the opportunity to present and discuss their bachelor or master projects.

C4.

Language, Logic & Categories

BLOCKSEMINAR
PHILOSOPHY OF MATHEMATICAL COGNITION
(030085)
DR. REGINA FABRY

TERM: Summer 2020
MEETING TIME: 01.-04.04.2020, 12.00 – 18.00
25.04.2020, 12.00 – 18.00
ROOM: GA 04/187
CP: 6

What is the sum of 14 + 23? How much is 49 ÷ 7? Most of us have learned to solve these problems – we are mathematical cognisers. How have we acquired competence in mathematical cognition in the course of our individual cognitive development? How has mathematical competence unfolded in the course of our cognitive history as a species? In recent years, philosophers have attempted to provide answers to these questions by drawing on empirical research in the cognitive sciences.

The purpose of this seminar is to map this new field of empirically informed philosophy of mathematical cognition. We will examine and discuss current positions that seek to determine the phylogenetic and ontogenetic conditions of our ability to engage in mathematical practices.
In addition to the careful preparation of all assigned readings and the active participation in the seminar, participants will be expected to give a presentation in English. To enrol, please send an email to:

Literature:

De Cruz, H., & De Smedt, J. (2013). Mathematical symbols as epistemic actions. *Synthese*, *190*(1), 3–19. https://doi.org/10.1007/s11229-010-9837-9

Jones, M. (2018). Numerals and neural reuse. *Synthese*, 1–25. https://doi.org/10.1007/s11229-018-01922-y

Menary, R. (2015). Mathematical cognition: A case of enculturation. In T. Metzinger & J. M. Windt (Eds.), *Open MIND* (pp. 1–20). Frankfurt am Main: MIND Group. https://doi.org/10.15502/9783958570818

Vold, K., & Schlimm, D. (2019). Extended mathematical cognition: External representations with non-derived content. *Synthese*, 1–21. https://doi.org/10.1007/s11229-019-02097-w

AM. Advanced Methods

Advanced methods are usually studied in the second semester. One exception is the "FMRI"-course which is only offered in the winter. Students who already have basic knowledge in cognitive neuroscience can choose to learn the "FMRI"-technique in the first semester. Necessary background: basic knowledge in cognitive neuroscience. The FMRI-seminar must be integrated into the course program during the first or the third semester; in the case you want to learn the FMRI –technique in the first semester, an individual application for the course is necessary: boris.suchan@rub.de.
The laboratory-class "Neural substrates of memory function" is a flexible whole day course that can be integrated whenever a student is free to do so; usually it only makes sense in the semester breaks.
Further advanced methods can be found in the program from the last summer semester on our webpage: http://www.ruhr-uni-bochum.de/philosophy/mcs/program_courses.html. They will again be offered in the upcoming summer semester.

AM1. Theory Formation and Conceptual Analysis

SEMINAR & COLLOQUIUM
PHILOSOPHY OF MIND AND EPISTEMOLOGY: SELF-CONSCIOUSNESS AND PERCEPTION
(030131)
PROF. ALBERT NEWEN & PROF. KATJA CRONE

TERM: Summer 2020
MEETING TIME: TUESDAY, 16.00-19.00 (FIRST MEETING: 07.04.2020)
ROOM: GA 03/46
CP: 3-6 CP

The seminar welcomes students who are interested in recent developments in philosophy of mind with a special focus on self-consciousness and perception. In one part of the colloquium we will discuss central texts about self-consciousness and perception. In the second part participants will have the opportunity to present their theses (bachelor, master and doctoral theses). Additionally, we will hear talks by invited speakers who present their own research work on self-consciousness.

The seminar will be taught in English and will take place in collaboration with the University of Dortmund (Prof. Dr. Katja Crone). The seminar is organized such that during the semester only three meetings/events will take place in Dortmund. The details of the seminar will be announced at the beginning of the semester.

Starting date: 14.04.2020 Preparatory meeting and first presentation or paper discussion (please enroll via eCampus and you will receive an email about the preparation).

AM1.

Theory Formation and Conceptual Analysis

SEMINAR

ESSAY WRITING SEMINAR
PHILOSOPHY OF PERCEPTION:
WILFRID SELLARS AND THE MYTH OF THE GIVEN
(030090)

DR. ALFREDO VERNAZZANI

TERM: SUMMER 2020
MEETING TIME: TUESDAY, 10.00 – 12.00 (FIRST MEETING: 07.04.2019)
ROOM: GA 04/358
CP: 6

This is an Essay Writing Course in Philosophy:

For all students who did not study philosophy during the BA program but need to learn how to write an essay or still feel insecure about it, we recommend in the summer term the seminar of Alfredo Vernazzani "Philosophy of Perception". It can be evaluated as C2 or AM1. For students who studied philosophy during the BA program, this course can only count for the C2 module. Details about the demands are clarified in the first meeting.

The Content:

Wilfrid Sellars (1912 – 1989) stands out as one of the most important philosophers of the 20th century. In his work, he sought to formulate a «scientifically oriented, naturalistic realism which would 'save the appearances'» ("Autobiographical Reflections" 1973). Philosophers like John McDowell, Robert Brandom, Jay Rosenberg, Danielle Macbeth, Paul and Patricia S. Churchland, Richard Rorty, and many others have been influenced by his work. Among his papers, the most influential one has been his "Empiricism and the Philosophy of Mind" (EPM) (1956) where Sellars attacked the 'Myth of the Given', touching on issues such as the nature of perceptual experience, epistemology of perception, and the philosophy of language. In this seminar, we will read, comment, and contextualize EPM.
For an overview of Sellars' philosophy, I recommend deVries' (2016) entry "Wilfrid Sellars" in the *Stanford Encyclopedia of Philosophy*: https://plato.stanford.edu/entries/sellars/

Literature:

I recommend buying the following edition of Sellars' EPM:
Wilfrid Sellars (1997) *Empiricism and the Philosophy of Mind*. Cambridge, MA: Harvard University Press. With an Introduction by Richard Rorty, and a study guide by Robert Brandom.

Additional material will be made available on Moodle.

AM2.

Advanced Analysis of Language and Logic

SEMINAR

EXPERIMENTAL SEMANTICS AND PRAGMATICS (030089)

PROF. MARKUS WERNING

TERM: Summer 2020
MEETING TIME: Thursday, 12 – 14, First Meeting: 09.04.2020
ROOM: GABF 04/187
CP: 3-6

Traditionally, philosophers and linguists have distinguished between the semantics of a sentence, i.e., what the sentence means, and the pragmatics of an utterance, i.e., what a speaker means by uttering a sentence. Semantics was supposed to explain the intuitive truth-conditions of a sentence. An important constraint here is the principle of compositionality according to which the meaning of a complex expression is determined by the meanings of its parts and the way they are combined (Werning, Hinzen, & Machery, 2012, ed.). Pragmatics was supposed to concern only secondary processes such us implicatures or presuppositions that come with the utterance of a sentence. Grice's (1996a; 1996b) conversational maxims have laid the ground for a theoretical explanation of those phenomena.

More recently, however, the line of demarcation between semantics and pragmatics has been challenged. Truth-conditional pragmatists (Recanati, 2010) argue that pragmatic factors can modulate meaning at any stage of sentence meaning composition and thus have a direct influence on the intuitive truth conditions of sentences. Semantic minimalists (Borg, 2012), in contrast, defend the classical view of bottom-up compositionality. In the last few years, this controversy has also been investigated within a probability-theoretic framework of Bayesian Pragmatics and tackled with empirical methods (Frank & Goodman, 2012; Spychalska, Kontinen, & Werning, 2016; Cosentino, Baggio, Kontinen, & Werning, 2017, Werning & Cosentino, 2017).

After laying the theoretical grounds, in the seminar, we will focus on most recent empirical research on those issues (EEG, MEG, fMRI and behavioral studies).

Aside from active participation, participants will be expected to give a presentation in English. Assistance regarding the English language will be provided. Student will be provided with limited opportunities to take part in an internship in our EEG lab.

For a list of literature have a look at the online course description.

AM3

Behaviour Studies & Data Analysis

SEMINAR

FACE RECOGNITION ACROSS THE LIFE SPAN (112348)

GULIZAR TEL

TERM: Summer 2020
MEETING TIME: Tuesday, 10.00-12.00 (First Meeting: 07.04.2020)
ROOM: IA 02/460
CP: 3

Every day we process thousands of visual stimuli. Due to their social relevance, faces are among the most important visual stimuli as they provide us with valuable information about a perceived individual in social interactions. This seminar discusses how face recognition develops over the life span and how for instance age, gender, emotions or own-race faces play a role in face processing. In this seminar, students are to present an article by choice in form of a poster presentation. Please note that the seminar will be taught in English. Students can choose to give their presentations in German or English.

In case you are interested in the course. please contact Ms. Petra Lazer at epsy@rub.de who will also tell you, if you were accepted.

AM3

Behaviour Studies & Data Analysis

BLOCKSEMINAR

INTRODUCTION INTO STATISTICAL ANALYSES USING R (119001)

SOPHIA TERWIEL

TERM: Summer 2020
MEETING TIME: Friday 05.06.20, 9.00-17.00
Friday 19.06.20, 9.00-17.00
Friday 26.06.20, 9.00-17.00
ROOM: IA 0/69 (PC-Pool 2)
CP: 3

In the course of the seminar students will be enabled to perform a complete data analyses including the steps of

1. data management (calculate variables, import or export datasets, etc.)
2. descriptive data analyses (calculation of mean values, etc.)
3. inferential data analyses (t-test, correlation, linear regression)
4. creation of graphs

Participants are expected to have a basic knowledge of descriptive (mean, standard deviation, etc.) and inferential statistics (p-values, distributions, etc.) before starting the seminar.

Please register via eCampus!

AM4.

Computational Modeling

LECTURE & EXERCISE

MATHEMATICS FOR MODELING AND DATA ANALYSIS (310503 & 310513)

PROF. LAURENZ WISKOTT

TERM:	Summer 2020
LECTURE:	Thursday, 12.15 – 13.45, (First Meeting: 09.04.2020)
EXERCISE:	Thursday, 10.30 – 12.00, (First Meeting: 16.04.2020, 9.00-10.30)
ROOM:	NB 3/57
CP:	6

This course covers mathematical methods that are relevant for modeling and data analysis. Particular emphasis will be put on an intuitive understanding as is required for a creative command of mathematics. The following topics will be covered: Functions, Hilbert-Spaces, matrices as, transformations, systems of linear differential equations, qualitative analysis of nonlinear differential equations, Bayes theory, multiple integrals.

AM4.

Computational Modeling

SEMINAR

PROGRAMMIEREN IN MATLAB / PROGRAMMING IN MATLAB (118155)

DR. ROLAND PUSCH, PROF. JONAS ROSE

TERM: Summer 2020
MEETING TIME: Thursday, 14.00-16.00 and 16.00-18-00, First Meeting: 09.04.2019
ROOM: IB 02/109 PC-POOL
CP: t.b.a.

This course will be held in German language, but there will be a **second group in English language**, if there are enough interested students. So if you would like that to happen, please apply early.

In dem Projektseminar nehmen die Studierenden an einem Forschungsprojekt teil und gewinnen einen Einblick in die Versuchsdurchführung, Datenanalyse und -interpretation. Im Vordergrund steht dabei die Einführung in die Programmierung mit Matlab, die in wöchentlichen Sitzungen stattfindet und von zeitintensiven Hausaufgaben begleitet wird. In den Seminarsitzungen werden die Studierenden eigene Versuche entwerfen, programmieren und durchführen. Die erhobenen Daten werden die Studierenden mit ihren neu gewonnenen Programmierkenntnissen in Matlab auswerten. In einem separaten Blocktermin wird das Projekt inhaltlich erarbeitet. Am Ende werden alle drei Aufgabenbereiche in einem Bericht zusammenlaufen, in dem die inhaltlichen Aspekte des Projekts, die erhobenen Daten und deren Auswertung beschrieben werden. Rückfragen bitte an: roland.pusch@rub.de/jonas.rose@rub.de Raum: Medienraum GAFO 04/615 Do, 16.00 - 18.00, plus Blockveranstaltung (am Wochenende)

AM4. Computational Modeling

LAB COURSE

INTRODUCTION TO PYTHON

(310533)

PROF. LAURENZ WISKOTT & MERLIN SCHÜLER

TERM: Summer 2020
MEETING TIME: 31.08.-11.09.2020, 10:00-16:00
(Preliminary Meeting: 24.08., 13:30-14:15, NB3/57)
ROOM: IA 0/158-79 PC-POOL 1
CP: 3

Python is a programming language that is wide-spread among scientists due to its readability and powerful standard libraries. This practical course aims to teach Python to students with prior exposure to basic programming concepts. In addition to an introduction of the language basics there will be a focus on scientific computing centred on matrix representations of data.

Requirements: We expect fluency in one other programming language and familiarity with concepts like control structures, data types, functions, and object-oriented programming. These concepts will not be taught separately.

Language: The official language of the course is English**.**

Content:

- **Python basics:** syntax, interpreter, control structures, data types, OOP
- **Scientific computing:** NumPy, Matplotlib, scikit-learn
- **Project:** realization of a project in Python

Grading:
Grading is based on the project in the second week. If crucial components of Python are not covered in your project, we might also test your knowledge on the subject.

Enrollment: from 01.06. until 26.06.2020

- enroll by sending an eMail to python@ini.rub.de with the info below.
- Also, enroll "officially" via FlexNow or your examination office (Prüfungsamt).

In your mail please include:

- Name
- student ID number (Matrikelnummer)
- study program (e.g., "Master Cognitive Science")
- do you own a laptop to use in the course?

We only have limited number of reserved seats for Cognitive Science students. For the remaining seats Students of "Angewandte Informatik" PO13 will be given priority as participation in one of the programming courses is mandatory for them.

AM5.

Special Methods in Neuroscience/Genetics

BLOCKSEMINAR

NEUROEPIGENETICS (118161) (IN ENGLISH)

DR. VANESSA LUX

TERM:	SUMMER 2020
MEETING:	DO. 09.04. 12.00 – 14.00: IB 02/135
	FR. 24.04. 9.00 – 17.00: IB 02/135
	SA. 25.04. 9.00 – 18.00: IB 02/135
CP:	TBA

Neuroepigentics studies epigenetic modifications in neuronal cells. First evidence indicates that epigenetic mechanisms regulating neuronal cell expression contribute to cell differentiation, brain development, learning, and memory. Students will get familiar with the most studied epigenetic mechanisms (DNA methylation, histone modifications, and RNA interference) and underlying models of gene-environment interaction. We will look into hot topics in developmental neurobiology, memory research, learning, and stress research, and learn about first findings. Moreover, we will discuss possibilities and limits of neuroepigenetics and its methods (molecular analyses, animal models, peripheral biomarkers) for psychological research questions. As an add-on, participants will learn strategies how to read and evaluate research papers efficiently. The course is taught in English.

AM6. EEG-training

SEMINAR & PRACTICAL COURSE

S SEMINAR COURSE NEUROPHYSIOLOGICAL METHODS: EEG (118157, 118158, 118151)

CHRISTINE HUCKE (SEM 1 AND LAB: IN ENGLISH)

BORIS SUCHAN (SEM 2: IN GERMAN)

TERM:	Summer 2020		
SEMINAR 1 & LAB:	22.05.20 + 23.05.20	09.00 – 18.00	IA 02/461
	11.07.20 + 02.07.20	09.00 – 18.00	IA 02/161
	Preliminary meeting: 02.04.2020, 14.00-16.00, IA 02/445		
CP:	6		
SEMINAR 2:	Monday, 10.00-12.00 (First meeting: 06.04.2020)		
ROOM:	IA 02/461		
CP:	3		

Please make early decision and contact the lecturers running the courses: Please notice the entry conditions of the courses.

There are three levels with which you can study the EEG-method.

1. For German speaking students: If you want to be intensely informed about EEG method but do not plan to use it for the master thesis project, then it is recommended that you participate in seminar 2 only.

2. If you plan to use EEG-methods for your master thesis project, then you are supposed to participate in the following package of seminar and laboratory course, i.e. at least seminar 1 (offered by Prof. Axmacher/Hucke) and laboratory course (offered by /Prof. Axmacher/Hucke)

3. You may specialize very intensely in EEG-methods, then you can combine all three courses.

Seminar 1: "Seminar course neuropyschological methods: EEG" (118158) Hucke

The seminar course stands in direct relation to the laboratory course with the same name (also 2 SWS). Participation in both modules is mandatory.

The goal is to relay the ability to develop further research questions in cognitive neuroscience based on published neuropsychological literature, and to develop, independently conduct, and analyze studies corresponding to these research questions. An additional goal is to acquire the ability to present the results in writing corresponding to the standards of neuroscientific journals. The course will be held in English.

Laboratory Course: "Practical course neuropsychological methods EEG" (118157) Hucke

The laboratory course stands in direct relation to the seminar course with the same name (also 2 SWS). Participation in both modules is mandatory.

The goal is to relay the ability to develop further research questions in cognitive neuroscience based on published neuropsychological literature, and to develop, independently conduct, and analyze studies corresponding to these research questions. An additional goal is to acquire the ability to present the results in writing corresponding to the standards of neuroscientific journals. The course will be held in English.

Seminar 2: „Ereigniskorrelierte Potentiale in der Neuropsychologie“ (118151) <IN GERMAN> Prof. Dr. Boris Suchan, Monday, 10:00 – 12:00, First Meeting: 01.04.19, Room IA 02/461

Das Seminar beschäftigt sich mit der Technik des Elektroenzephalogramms und den ereigniskorrelierten Potentialen. Diese Methode ist in der Neuropsychologie sowohl in Forschung als auch in der klinischen Anwendung sehr wichtig. Im Seminar werden alle wichtigen Paradigmen vorgestellt und diskutiert. Ebenfalls werden praktische Übungen im Labor durchgeführt. Eine Literaturliste wird zu Beginn des Seminars verteilt.

D. Free Selection

Please notice that under the category "free selection" we only describe courses which are in German as additional offers. For the German speakers please notice that you are only allowed to have maximally three courses in German in the whole program. For all students including the English speaking students the following rule holds: All courses of the whole program can also be accepted in the module free selection, i.e. if you have completed (or you have a clear plan how to complete) the obligatory modules, you can choose whatever course supports you best to realize the optimal master thesis. Furthermore, we can in principle accept also internships up to 10 credit points in the category of free selection. The internship must of course be equivalent to the number of credit points and it must be an internship that is proven to qualify for the program "Cognitive Science" and ideally supports the master thesis. If you aim to use an internship as a way to complete a part of this module then please contact Dr. Brössel or Prof. Newen in advance.

D1.

Free Selection

VORLESUNG
KOGNITION UND GEHIRN
(112611)
PROF. OLIVER WOLF

TERM: Summer 2020
MEETING TIME: Monday, 14.00 – 16.00, First Meeting: 06.04.2020
ROOM: HIA
CP: 3

Die Vorlesung bietet einen Überblick über Befunde und Theorien zu aktuellen Themen der kognitiven Neurowissenschaft. Die Vorlesung setzt Grundkenntnisse der Kognitionspsychologie und der Biopsychologie voraus. Kenntnisse aus dieser Vorlesung werden im Master Studiengang Psychologie und Kognitive Neurowissenschaft vorausgesetzt.

D1.

Free Selection

SEMINAR

S DISKURS MEMORY & SPATIAL NAVIGATION

(118164)

ANNE BIERBRAUER

TERM: Summer 2020
MEETING TIME: Tuesday, 14 – 16 (First Meeting: 07.04.2020)
ROOM: IA 1/157 **CP:**
TBA

In this seminar, we read and discuss early and recent literature on spatial navigation and memory in order to see how the topics relate to each other. One focus of the seminar is the comparison of different methodological approaches in cognitive neuroscience (studies in animals and humans, electrophysiology and fMRI, univariate and multivariate analyses).

Please notice that the number of participants is highly limited for this course.

D1.

Free Selection

LECTURE

EVOLUTION UND EMOTION

(112251)

PROF. ONUR GÜNTÜRKÜN

TERM: Summer 2020
MEETING TIME: Thursday, 16.00 – 18.00, First Meeting: 09.04.2020
ROOM: HIA
CP: 3

Wie verlief bisher die Geschichte des Lebens? Innerhalb welchen Gesamtszenarios bettet sich die Entstehung des Menschen ein und welche Anteile unseres heutigen Denkens, Handelns und Fühlens reflektieren die Gesetzmäßigkeiten, die bei der Phylogenese unseres Gehirns wirksam waren? Wie determiniert die Interaktion von Umweltfaktoren und genetischer Anlage unsere Entwicklung? Um solche Fragen beantworten zu können, müssen wir die Evolutionstheorie mit allen ihren Implikationen kennenlernen. In der Vorlesung sollen folgende Themen behandelt werden: 1) Mechanismen der Genetik und Epigenetik 2) Verhaltensgenetik. 3)Entwicklung des Lebens und des Menschen. 4) Emotionsmechanismen. 5) Soziobiologie.

D1.

Free Selection

LECTURE
BIOPSYCHOLOGIE (112631)
PROF. ONUR GÜNTÜRKÜN

TERM: Summer 2020
MEETING TIME: Monday, 16.00 – 18.00 (First Meeting: 06.04.2020)
ROOM: HIA
CP: 3

Das Wissen um Hirnaufbau und Hirnfunktion ist die Grundlage für das Verstehen sämtlicher bio- und neuropsychologischer Fragestellungen. In dieser Vorlesung wollen wir uns exemplarisch das Sehsystem des Menschen vornehmen. Wir wollen seine Funktionen verstehen, indem wir die Anatomie und Physiologie des Sehsystems kennenlernen und neuropsychologische Ausfälle anschauen. Danach wollen wir kennenlernen, wie die visuelle Information in die Prozesse des präfrontalen Cortex integriert wird, so dass die Fähigkeit zum Behalten, Planen und Handeln entsteht. Kurz gesagt, wollen wir die neuralen Grundlagen des Wahrnehmens und Erkennens kennenlernen.

Literatur:
Onur Güntürkün, Biopsychologie, Hogrefe Verlag 2012, Kapitel 5 - 12
Bekanntgabe weiterer aktueller Literatur während der Veranstaltung und über Blackboard.

D1.

Free Selection

SEMINAR
PSYCHIATRISCHE GENETIK UND EPIGENETIK
(118162)
ELISABETH HUMMEL

TERM: Summer 2020
MEETING TIME: Tuesday, 12.00 – 14.00 (First Meeting: 07.04.2020)
ROOM: IB 02/135
CP: 3

Only 2 people may join. If you are interested, please send an application directly to Robert Kumsta: *Robert.Kumsta@rub.de.*

In this seminar we will discuss current research in the molecular behaviour genetics and focus on findings from the psychiatric genetics, results of the gene-environment interaction, gene expressions and epigenetics. For instance, we will look into the mechanisms to determine how early environmental factors are „biologically codified" (biological embedding of experience) and what role epigenetic processes play thereby. Moreover, the benefits of biomarkers will be discussed. The exact literature selection will be specified upon agreement with the participants. The latest publications will be discussed and critically analysed as to the methods.

D1.

Free Selection

SEMINAR
KOMPARATIVE KOGNITION
(112612)
JULIAN PACKHEISER, SARAH VON EUGEN

TERM: Summer 2020
MEETING TIME: Monday, 12.00 – 14.00 (First Meeting: 06.04.2020)
ROOM: IA 02/445
CP: 3

Die Evolution hat im Laufe der Zeit eine Vielzahl unterschiedlicher Lebewesen hervorgebracht. Von allen Arten die heute auf diesem Planeten leben, scheint der Mensch aufgrund seiner kognitiven Fähigkeiten eine Sonderstellung im Tierreich einzunehmen. Zu diesen Fertigkeiten gehören unter anderem Sprache, Problemlösen sowie das episodische Gedächtnis. Wie auch physische Merkmale, unterliegen kognitive Funktionen dem Evolutionsprozess und haben sich im Laufe der Zeit und unter Einfluss von Umweltfaktoren herausgebildet. Insofern ist der Vergleich zwischen den Hirnleistungen von humanen und non-humanen Lebewesen besonders aufschlussreich, um die Frage nach den notwendigen neuroanatomischen Strukturen für eine spezifische Funktionsdomäne zu klären.
Die zentrale Fragestellung wird innerhalb des Seminares auf Grundlage von komparativen Studien von den Studierenden in Kurzreferaten erarbeitet. Hierbei steht der Vergleich zwischen Säugern und Vögeln im Fokus und wird anschließend im wissenschaftlichen Diskurs weiter vertieft. Abschließend findet eine Posterpräsentation statt, in der die Inhalte des Seminares noch einmal zusammengefasst werden sollen.

D1.

Free Selection

SEMINAR
LERNEN UND PROBLEMLÖSEN
(030268)
PROF. NIKOL RUMMEL

TERM: Summer 2020
MEETING TIME: Tuesday, 12.00 – 14.00 (First Meeting: 14.04.2020)
ROOM: GA 2/41
CP: 3

In diesem Seminar sollen zunächst grundlegende Konzeptualisierungen menschlichen Lernens erarbeitet werden; anschließend werden verschiedene Formen des Lernens kontrastiert (formales, nonformales und informelles Lernen). Der zweite Teil der Veranstaltung beschäftigt sich mit dem Konzept des Problemlösens. Die Fähigkeit Probleme zu lösen wird als eine der Schlüsselkompetenzen für die Bewältigung von Anforderungen im beruflichen wie privaten Alltag angesehen. Entsprechend stellt sich die Frage, wie eine solche Problemlösefähigkeit zu vermitteln ist. Gleichzeitig wird Problemlösen als Instruktionsmethode genutzt. Dadurch stellt sich die Frage nach dem Zusammenspiel von Problemlösen und Lernen. Abschließend werden spezifische Situationen, in denen Lernen und Problemlösen stattfinden, betrachtet und die damit einhergehenden Möglichkeiten bzw. Herausforderungen diskutiert.

Die Seminarsitzungen werden mit Impulsreferaten, vertiefenden Diskussionen und Gruppenarbeiten so gestaltet, dass eine aktive und interaktive Auseinandersetzung aller Teilnehmer/innen mit den Inhalten gefördert wird.

Anforderungen für den (unbenoteten) Leistungsnachweis: Lektüre ausgewählter Texte und Bearbeitung von kleinen Aufgaben zur Vorbereitung der Sitzungen; aktive Mitarbeit.

SECOND YEAR PROGRAM

Please notice that one and the same course can only be accepted as part of one Module. Double use of the same Module is prohibited.

I. Interdisciplinary Research Module

Usually the interdisciplinary research modules should be completed in the third semester (winter semester). To keep flexibility for the students we offer some courses for these modules in the summer semester as well. Please check individually with the lecturer whether the colloquium will be in English. If the announcement is in English it is in English. But even if the announcement is in German the course may be in English because the literature discussed is in English.

I1. Focus Module Philosophy

COLLOQUIUM
RESEARCH COLLOQUIUM:
PHILOSOPHY MEETS COGNITIVE SCIENCE
(030128)
PROF. MARKUS WERNING

TERM: Summer 2020
MEETING TIME: Tuesday, 16.00 – 19.00 (First Meeting: 07.04.2020)
ROOM: GA 04/187
CP: 3-6

In the research colloquium current topics at the interface between Philosophy and Cognitive Science will be discussed. The colloquium hosts talks by visiting leading experts and local researchers as well as presentations by doctoral and master students. Students will be given the (assisted) opportunity to present their projects in English.

I1.

Focus Module Philosophy

COLLOQUIUM AND SEMINAR

PHILOSOPHY OF MIND AND EPISTEMOLOGY: SELF-CONSCIOUSNESS AND PERCEPTION (030131)

PROF. ALBERT NEWEN & PROF. KATJA CRONE

TERM: Summer 2020
MEETING TIME: Tuesday, 16.00 – 19.00 (First Meeting: 07.04.2020)
ROOM: GA 03/46
CP: 3-6

The seminar welcomes students who are interested in recent developments in philosophy of mind with a special focus on self-consciousness and perception. In one part of the colloquium we will discuss central texts about self-consciousness and perception. In the second part participants will have the opportunity to present their theses (bachelor, master and doctoral theses). Additionally, we will hear talks by invited speakers who present their own research work on self-consciousness.

The seminar will be taught in English and will take place in collaboration with the University of Dortmund (Prof. Dr. Katja Crone). The seminar is organized such that during the semester only three meetings/events will take place in Dortmund. The details of the seminar will be announced at the beginning of the semester.

Starting date: 14.04.2020 Preparatory meeting and first presentation or paper discussion (please enroll via eCampus and you will receive an email about the preparation).

11.

Focus Module Philosophy

COLLOQUIUM

EXTRA RESEARCH COLLOQUIUM "METAPHILOSOPHY AND EXPERIMENTAL PHILOSOPHY"

(030126)

JUN.-PROF. JOACHIM HORVATH

TERM: Summer 2020
MEETING TIME: Wednesday, 17.00 – 19.00 (First Meeting: 08.04.2019)
ROOM: GAFO 04/619
CP: 3-6

In this research colloquium, we will discuss current topics from metaphilosophy and experimental philosophy, broadly construed. The colloquium will also host talks by a number of external guests, some of which will be leading experts in their field. Students at the master or doctoral level will be given the opportunity to present their work in English.

12.

Focus Module Psychology

COLLOQUIUM

SCIENTIFIC COLLOQUIUM: COGNITIVE PSYCHOLOGY AND PSYCHONEUROENDOCRINOLOGY
(118913)

PROF. OLIVER T. WOLF

TERM: Summer 2020
MEETING TIME: Tuesday, 16.00 – 18.00 (First Meeting: 07.04.2020)
ROOM: IA 02/445
CP: 3

In this forum, scientific projects (i.e. Master and PhD projects) of the Cognitive Psychology work group will be presented. The main focus is on experimental stress studies. Here we will try to answer the questions, “what makes us stressed” and “how does stress affects our cognitive skills”. In addition, invited guests from our faculty, from other faculties of the RUB and from other universities world wild will present their current research findings on topics that relate to cognitive psychology or psychoneuroendocrinology.

An overview of the schedule will be available on the AE homepage from the beginning of April.

The seminar will be held in the English language.

12.

Focus Module Psychology

SEMINAR

JOURNAL CLUB: LEARNING AND MEMORY
(310526)

PROF. SEN CHENG

TERM:	Summer 2020
MEETING TIME:	Tuesday, 14.00 – 16.00 (First Meeting: 21.04.2020)
ROOM:	Online
CP:	3

We will focus on the neural basis of learning and memory at the systems level. In each session a journal article will be presented by one participant and discussed by all participants. The articles will be selected particularly in the areas of spatial and episodic memory. They will focus on the functional role of the mamalian hippocampus in these processes and include a diverse set of approaches: electrophysiology, imaging, computational modeling, and robotics.

Contact: Prof. Sen Cheng, NB 3/33, sen.cheng@rub.de

Office hours: Thursdays 14:00-15:00 (Cheng)

Max. 15 students

I3.

Focus Module Computational Modeling

LECTURE & EXERCISE

COMPUTATIONAL NEUROSCIENCE: VISION AND MEMORY (310504 & 310514)

PROF. LAURENZ WISKOTT

TERM:	Summer 2020
LECTURE:	Tuesday, 12.15 – 13.45 (First Meeting: 07.04.2020)
EXERCISE:	Tuesday, 9:00 – 12:00 (First Meeting: 14.04.2020)
ROOM:	NB 3/57
CP:	6

This lecture presents models of self-organization in neural systems, in particular addressing vision (receptive fields, neural maps, invariances, attention) and associative memory (Hopfield network).

If this seminar is used for Module C3, it cannot be used for I3.

I3.

Focus Module Computational Modeling

LECTURE & EXERCISE

AUTONOMOUS ROBOTICS: ACTION, PERCEPTION, AND COGNITION

(310501 & 310511)

PROF. GREGOR SCHÖNER

TERM:	Summer 2020
LECTURE:	Thursday, 14.15 – 16.00 (First meeting: 16.04.2020)
EXERCISE:	Thursday, 16.15 – 17.00 (First meeting: 23.04.2020)
ROOM:	NB 3/57
CP:	6

Neuroinformatics is concerned with the discovery of new solutions to technical problems of information processing. These solutions are sought based on analogies with nervous systems and the behaviour of organisms. This course focuses on three exemplary problems to illustrate this approach:
(a) Artificial action (autonomous robotics);
(b) Artificial perception (robot vision);
(c) Artificial cognition (simplest cognitive capabilities of autonomous robots such as decision making, memory, behavioural organization).
The main methodological emphasis is on nonlinear dynamical systems' approaches and dynamic (neural) fields.

If this seminar is used for Module C2, it cannot be used for I3.

14.

Focus Module Neuroscience

COLLOQUIUM
RESEARCH COLLOQUIUM NEUROPSYCHOLOGY
(118912)
DR. NIKOLAI AXMACHER

TERM: Summer 2020
MEETING TIME: Thursday, 14.00 – 16.00 (First Meeting: 09.04.2020)
ROOM: IB 6/127
CP: 3

Presentation of the current research work and talks by guest speakers on clinical and neuropsychological topics. A schedule with information about the talks and speakers will be published on the webpage at the beginning of the term. A critical examination of the course materials in form of discussions constitutes the central teaching goal and will be included into the assessment.

14.

Focus Module Neuroscience

COLLOQUIUM
RESEARCH COLLOQUIUM BIOPSYCHOLOGY
(118914)
PROF. ONUR GÜNTÜRKÜN

TERM: Summer 2020
MEETING TIME: Monday, 13.00 – 15.00 (First Meeting: 06.04.2020)
ROOM: IB 6/127
CP: TBA

The research colloquium is open to all employees and graduate students of the Biopsychology department. The Aim is to present and discuss their research. In addition external guests are invited to give talks on different aspects of biopsychology. You can have a look at the schedule at the department's information board and our homepage: http://www.bio.psy.ruhr-unibochum.de/

14.

Focus Module Neuroscience

COLLOQUIUM

RESEARCH COLLOQUIUM: GENETIC PSYCHOLOGY (118911)

PROF. ROBERT KUMSTA

TERM: Summer 2020
MEETING TIME: Monday, 16.00 – 18.00 (First Meeting: 06.04.2020)
ROOM: IB 5/103
CP: 3

This colloquium aims at presentation of the current research projects and qualification papers (bachelor, master, PhD theses) in the working unit Genetic Psychology. Moreover, we will invite scientists to present their current research results. To earn credit points a contribution in form of an essay is required. The topic of the essay shall cover one of the main research areas of the AE Genetic Psychology.