

**PhD Program
of the
Otto Creutzfeldt Center for Cognitive and Behavioral Neuroscience
at the
Westfälische Wilhelms-Universität Münster**

1.Preamble

The PhD program of the “Otto Creutzfeldt Center for Cognitive and Behavioral Neuroscience” (OCC) at the Westfälische Wilhelms-Universität Münster offers a secondary, faculty-spanning education in the field of “Cognitive and Behavioral Neurosciences”. The program is aimed at granting a PhD title and follows the PhD guidelines of the faculty of Biology or the faculty of Psychology and Sport and Exercise Sciences as set out by the Westfälische Wilhelms-Universität. The PhD program offers an interdisciplinary curriculum to outstanding graduates in medicine, psychology, biology and associated fields from both German and foreign universities, in order to extend their qualification and to enhance their job opportunities.

2.Contents of the PhD Program

The three-year PhD program consists of (1) compulsory courses (CC), (2) optional courses (OC), (3) the dissertation and (4) the thesis defense. In the majority of cases, the completion of a cumulative dissertation covers three years and finishes with the thesis defense. During their PhD studies, graduates must obtain at least 36 ECTS points from participation in CCs and OCs. The OCC scientists who participate in the program as supervisors and teachers are appointed by the OCC program committee.

2.1 Courses

The obligatory and optional courses of the OCC are listed in the appendix. The program committee (see below) will decide about the crediting of additional courses upon request.

2.2 Dissertation

Every graduate student must write his or her dissertation in a current field of “Cognitive and Behavioral Neurosciences”. The dissertation should be cumulative if possible and consists of at least three separate, but in terms of content, coherent scientific papers. At least one of these papers should be published (or accepted to be

published) by an internationally acknowledged journal with a peer-review system. The graduate students are supposed to provide *vital* contributions to the writing of these papers. The graduate committee will decide about the acceptance of the dissertation, as well as about the selection of the reviewers. Further details are specified by the PhD guidelines of the respective faculties.

2.3 Thesis Defense

The defense consists of an internal public lecture given by the candidate on his or her dissertation and includes a discussion and a following oral examination. Further details are specified by the PhD guidelines of the respective faculties.

3. Funding

The doctoral candidates participating in the PhD program are funded by scholarships and/or regular employment contracts, usually covering three years.

4. Graduate Committee (GC)

The OCC elects a permanent and joint graduate committee (GC), in which one professor from each faculty represented in the OCC participates. The OCC professors propose dissertation topics to the GC that may be completed within the next three years and for which funding is secured. The GC selects appropriate topics from these suggestions, appoints a PhD Committee (PC) for each topic and advertises the PhD positions in the context of the PhD program. The advertisement can be omitted if a qualified candidate is already suggested by a professor. After the completion of the dissertation, the GC decides about the acceptance as well as on the selection of reviewers. Furthermore, the committee is in charge of settling all general questions. The GC also elects a spokesperson from the committee members, who represents the committee externally.

5. PhD Committee (PC)

For every PhD thesis in the OCC, there is one assigned PhD committee (PC). The PC consists of three members: the OCC professor who suggested the dissertation topic and two additional scientists with a PhD. It is important to ensure the interdisciplinary nature of the committee. As a general rule, this requirement is fulfilled if at least one member is from another department/institute and/or faculty. Two members of the PC should be members of the OCC. In addition, the composition of each PC is specified by the PhD guidelines of the respective faculties.

Before registering for the PhD program, a doctoral agreement (Appendix) must be concluded between all members of the PC and the doctoral candidate.

For a PhD in the Faculty of Biology:

The PC consists of the supervisor (who suggested the topic) and two additional members. Only scientists with habilitation or with equivalent scientific training (e.g., junior professors, Emmy Noether fellows during their scholarship) can be members of the PC. At least two members of the PC need to be PhDs from a natural-sciences department (Dr. rer. nat.) or have an equivalent qualification. The “Doctoral Committee” of the Faculty of Biology will decide about equivalence of qualifications upon written and well-founded request. The supervisor or at least one member of the PC must be employed on a permanent basis at the Faculty of Biology at the University of Münster. Again the “Doctoral Committee” of the Department of Biology can allow exceptions for PC members who are employed on a permanent basis at other universities upon written request. If the supervisor is not employed on a permanent basis at the University of Münster, a qualified scientist who has a permanent employment contract at the University of Münster must declare in written form that they will take on the role of the supervisor if necessary.

(cf. PhD guidelines from Sep. 30, 2019 of the faculty of Biology; § 5 PhD committee)

For a PhD in the Faculty of Psychology and Sports and Exercise Sciences:

The PC consists of the supervisor (responsible for the topic) and two additional members. Only scientists with a PhD can be members of a PC. Two of the members need to have completed their habilitation or have an equivalent qualification. The supervisor is required to have finished his or her habilitation or have equivalent qualification. The Doctoral Committee of the Faculty of Psychology and Sports and Exercise Sciences will decide about equivalence of qualifications upon written and well-founded request. At least one member of the PC must be employed full-time at the Faculty of Psychology and Sports and Exercise Sciences of the University of Münster. Finally, with regard to the composition of the doctoral committee, care must be taken to ensure that the choice of the second reviewer ensures independent supervision and assessment of the dissertation.

(cf. PhD guidelines from July 1, 2010 of the Faculty of Psychology and Sports and Exercise Sciences; § 4 PhD committee)

6. Program Committee (PGC)

The program committee (PGC) consists of the OCC director of education, an additional member of the OCC and a representative of the graduates. The PGC is in charge of the organization and evaluation of the compulsory and optional courses of the PhD program. Furthermore, the PGC can suggest ways in which the course program could be improved to the GC. Additionally, the PGC decides about the crediting of courses that have been successfully completed outside the program.

7. Language

The language of the graduate program is English.

8. Start

The program starts each winter term.

9. Admission requirements

The admission requirements are specified by the PhD guidelines of the respective departments.

See:

- PhD guidelines from Sep. 30, 2019 of the faculty of Biology

<https://www.uni-muenster.de/Biologie/Promovieren/Promotionspruefungsamt/Promotionsordnungen.html>

- PhD guidelines of the Faculty of Psychology and Sports and Exercise Sciences (July 1, 2010)

https://www.uni-muenster.de/FB7/promotion/promotionsordnung_fb7.html

Appendix: Courses in the PhD Program of the OCC

This Appendix lists the compulsory (CC) and optional courses (OC) in the PhD program of the OCC. The list contains for each course title and brief content description, the number of hours per week per semester, the frequency with which the course is given, the minimum number of ECTS that must be obtained in the course, and the maximum number of ECTS that can be obtained.

1 Compulsory activities (CA)

CA-1 Bi-annual lecture Cognitive and Behavioral Neuroscience

This introductory lecture aims to provide the PhD students with an overview of the themes and topics of cognitive and behavioral neuroscience. The lectures are given by various members of the OCC, thereby covering all aspects of the research within the OCC.

2 hours per week 2 ECTS

Available bi-annually

Minimum 2 ECTS/ maximum 4 ECTS in 3 years

CA-2 Lab rotations in cognitive and behavioral neuroscience

In these courses, the PhD students acquire deeper knowledge about the techniques used in the different research fields of cognitive and behavioral neuroscience. Students can choose from a variety of courses/lab rotations to fit their personal needs. A list of current offers is provided on the web page. Interested students should select relevant courses together with their PhD committee, and approach the OCC member responsible for the course they are interested in.

The primary purpose of a lab rotation is to learn new/advanced methods in other labs that are part of the OCC. Some of the lab rotations are organized by the OCC members and the OCC coordinator (e.g., statistics, fMRI, kinematics and kinetics lab rotations in the recent past). But you can also organize your own lab rotation in other labs (similar to an internship) if it's a very specialized topic or the lab cannot offer it in this fashion for multiple students. In general, the idea is that you participate in organizing the lab rotations by contacting the respective lab supervisors (see options on the Web site) and/or by at least letting the coordinator know what your current interests and demands are (there is no fixed schedule for lab rotations).

OCC students can also offer lab rotations for each other. A prerequisite is that the lab supervisor and OCC member is informed and participates in planning the visit (he or she has to sign the confirmation for the lab rotation). Ideally, the member would also be involved personally in implementing the lab rotation. Involvement of the group leader might often make it easier to fill a schedule for a whole week, because all the lab resources (research assistants, other methods etc.) can be used and different topics can be covered.

If students offer a lab rotation (or offer a sub-part of one) for other students, they can get optional credits for this activity (in accordance to the time invested). But these credits cannot be used as OCC teaching credits.

Since international exchange and collaboration with international partners is important, lab rotations in labs outside of Münster can be considered on request. Preconditions are that students register their stint with the OCC coordinator and the OCC Program Committee and that its main purpose is the acquisition of new research methods. Moreover, to make sure that

there is plenty of exchange between the groups in Münster, only 2 of the 6 lab-rotation credits can be acquired externally in this fashion. Summer schools and method courses (or similar events) cannot be considered for credits (but certainly as optional credits).

One week course or lab rotation 2 ECTS

Available on an individual basis

Minimum 6 ECTS in 3 years

CA-3 Reading groups (Journal club)

Current advances and important papers will be discussed in small, dedicated reading groups. This module provides a basis for students to stay up-to-date with the latest results in their research area and to develop and extend their knowledge in planning experiments, communicating results, and critically discussing papers. This course will be offered in parallel in the various specific departments of the OCC, and will be largely self-organized by the students. Students are also invited to join reading groups in related fields.

1 hour per week 1 ECTS

Available continuously

Minimum 3 ECTS / maximum 6 ECTS in 3 years

CA-4 Colloquium and master class

The colloquium series consists of invited talks by international speakers who will present their recent work and findings and discuss with the students. In the master classes, usually on the next morning, PhD students will have the opportunity to discuss research topics in depth with the guest speaker. These topics and questions will focus on the research of the speaker and will have been pre-selected and prepared by the students based on the speaker's recent publications.

To get a semester's credit, students have to visit at least 6 out of 8 events (4 colloquium talks + 4 master classes)

1 ECTS per semester

Available every semester

Minimum 4 ECTS / maximum 6 ECTS in three years

CA-5 Annual OCC retreat during the time being enrolled in OCC

Once per year every student gives a presentation of the current results and expected developments of his or her PhD project. Progress and problems of the project shall be discussed with the members of the OCC and the other PhD students. The presentation is also intended to further competences in presentation and discussion of one's own research. The presentations will be held on an annual two-day workshop which brings together all members and students of the OCC.

2 days 2 ECTS

Available once per year

Minimum 4 ECTS/ maximum 6 ECTS in 3 years (depending on duration of promotion phase)

CA-6 Active participation in international conferences in the area of cognitive and behavioral neuroscience

Effective publication of one's own research is a central component of a scientific career. Next to the opportunity to present own results in front of a broader community, the participation in international congresses can provide new ideas as well as new perspectives on your own work. Therefore, participation in scientific conferences by presentation of results from the PhD project is a mandatory part of the PhD program, to stress the importance of scientific communication.

The criteria for international conferences are currently: (1) ideally peer-reviewed contributions, (2) any location (international conference in Germany is fine), (3) decidedly international character (English language is not enough if there are just a few international guests and a mainly German attendance).

PhD students can suggest a conference they want to attend. In cases of doubt, the Program Commission decides whether the proposed conference fits into the field of cognitive and behavioral neuroscience.

3 ECTS per conference

Minimum 3 ECTS / maximum 9 ECTS in three years

CA-7 Teaching in the area of cognitive and behavioral neuroscience

PhD students of the OCC are requested to participate in teaching courses in the area of cognitive and behavioral neuroscience. Academic teachers generally agree that teaching a course on a particular topic provides one with a different and more widespread view on the topic and consolidates one's own knowledge. Teaching early in the scientific career during PhD studies trains competence for successful lecturing later in academic life. The teaching requirement for the PhD student is furthermore expected to strengthen the bounds between new and advanced students in the OCC. To get teaching credits, the course has to be an official teaching activity (part of the institute curricula); co-teaching with OCC members is a valid (and recommended) option.

Available in each semester

A total of 5 hours per week (70 h) for one semester within 3 years

5 ECTS

2 Optional activities (OA)

Optional activities comprise specific scientific modules, seminars for the development of communication and organization skills, further vocational training, and language courses. Optional courses will be offered within the OCC but can also involve courses provided elsewhere in the university, e.g. in the M.Sc. Program in Biology or Psychology and Sport Studies, and research modules taken outside the lab where the PhD research is conducted. Courses currently offered by members of the OCC are listed on the web page. PhD students may propose additional courses they want to attend. The Program Commission (PC) will then decide about the acceptance of the course and the points to be credited for the participation.

Overview of compulsory activities

CA-1	Bi-annual lecture Cognitive and Behavioral Neuroscience	2
CA-2	Methods courses/ lab rotation	6
CA-3	Reading group/ Journal club	3
CA-4	Colloquium and master class	4
CA-5	OCC retreat	4
CA-6	Active participation in international conferences	3
CA-7	Teaching in the area of cognitive and behavioral neurosciences	5

Sum of compulsory ECTS	27
------------------------	-----------

Minimum number of ECTS required in PhD program	36
--	-----------