

**MSc Program Social, Cognitive, and Affective Neuroscience
Research Experience, Research Workshop & Master Thesis Module**

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Overview

The second year of the SCAN MSc program comprises three modules that are conceived as a conceptual unit: (1) the Research Experience Module (12 credit points), (2) the Research Workshop Module (6 credit points), and (3) the Master Thesis Module (30 credit points). These modules enable the student to carry out an independent research project for the successful completion of the MSc thesis. The achievement of this outcome requires commitment, persistence, and good planning. To support the student in this undertaking, the three modules allow the cumulative persuasion of the overall objective and define intermediate milestones. The following notes provide information about the formal requirements for the successful completion of the second year modules and recommendations on how to effectively meet these. It should be noted that the responsibility to meet the requirements of all three modules lies with the student.

(1) Research Experience Module

The aim of the Research Experience Module is to prepare the student for the Master Thesis Module, which forms the core of the second year of studies. The central component of the Research Experience Module is an internship at a research institution of the student's choice. Internships can be done in the research groups of the professors teaching in the SCAN program, but also in external projects at research institutions in Berlin, Germany, or abroad. When looking for a place for an internship, it should be kept in mind that the internship is conceived as a preparation for the MSc thesis project. This preparation, however, can take different forms. Either the internship and the thesis project are closely related (for example, by constituting essentially the same research project in the same research group), or are more loosely related, for example, the internship serves as a training in a specific neuroscientific method, which is then applied in the thesis project. Given the complexity of cognitive neuroscience projects, and the limited amount of time to complete the MSc studies, a close relationship between internship and MSc thesis project is highly recommended. Assuming a 40 hour week, the internship should take approximately 2 - 3 months.

To be admitted to the Research Experience Module, students need to fill in the internship application form and submit it to internship coordinator, who will forward it to the examination office. To successfully complete the internship, the internship supervisor has to confirm that (1)

300 hours of research work have been carried out by the student and (2) an internship report requiring 60 hours of work has been written. Suitable internship supervisors are research group leaders and post-doctoral research scientists.

It should be noted that jobs as student assistant *per se* do not qualify as internships for the Research Experience Module. It is possible, however, to carry out the internship in the same research group, in which the student may hold a student assistant position. Likewise, internships completed prior to the SCAN MSc program do not qualify as internships for the Research Experience Module. Finally, it is formally possible to divide the internship into two or more shorter internships. However, in general this is not recommended and usually also not appreciated by research groups.

(2) Research Workshop Module

The aim of the Research Workshop Module is to support the student and supervisor in their preparation of the MSc thesis project. The main component of the Research Workshop Module is the “MSc Thesis Proposal Colloquium”, at which all students should present their proposed thesis project to the SCAN faculty and peers. The colloquium takes place by the end of the winter term of the second year. In order to successfully present an MSc thesis proposal at this colloquium, a suitable thesis supervisor and thesis topic should be identified before the Christmas break of the second year winter term. The oral presentation of the MSc thesis proposal is evaluated by the lecturers of the Research Workshop Module. The presentation is accompanied by a Master Thesis Exposé, which needs to be approved by both thesis supervisors/reviewers and the lecturers of the Research Workshop Module.

(3) Master Thesis Module

The Master Thesis Module is the core component of the SCAN MSc program and constitutes the principal achievement in the second year of studies. The purpose and formal requirements of the Master Thesis Module are documented in §9 of the study and examination regulations. In general, the MSc thesis project work should be performed and the thesis written and evaluated at Freie Universität Berlin. MSc thesis projects can be supervised by professors and post-doctoral researchers. Upon completion, the written thesis has to be evaluated by two reviewers. If the thesis supervisor is not a professor, but a post-doctoral researcher, the second reviewer has to be one of the professors teaching in the SCAN program. If the thesis project is carried out in an external laboratory not affiliated with the Freie Universität Berlin, a professor teaching in the SCAN program has to serve as the second reviewer of the written thesis. Note that the role of the second reviewer is of formal character and thus the responsibility for the successful completion of the Master Thesis Module lies with the student and the primary thesis supervisor.

The following formal regulations apply: In order to be admitted to the Master Thesis Module, the MSc thesis has to be officially registered at the examination office. The MSc thesis can be registered once the student has obtained 60 credit points from courses of the program

(basically all courses of the first two semesters have to be completed). To register the MSc thesis, the application form for the MSc thesis module has to be filled in and submitted to the SCAN examination office. In exceptional cases, a registration is possible if less than 60 credit points have been obtained. In these cases, approval of the MSc thesis registration by the examining board is required. According to the study and examination regulations the written thesis has to be submitted within 22 weeks after the topic has been approved by the examining board. Upon approving the topic, the examination board also sets the official deadline. After submission of the written thesis an oral defense is required. The defense comprises a 20 - 25 minute oral presentation of the thesis project followed by a discussion, amounting to maximally 45 minutes. The defense is evaluated by at least two examiners, one of which also has to be a reviewer of the written thesis. In general, the examiners of the oral defense are the primary supervisor of the thesis project (who also serves as the first reviewer) and the second reviewer of the written thesis. The grading of the Master Thesis module follows the standard grading system of the Freie Universität Berlin:

- 1 = Excellent - an outstanding performance.
- 2 = Good - a significantly above the average performance.
- 3 = Satisfactory - a performance fulfilling all requirements of an average performance.
- 4 = Fair - a performance, which, despite its shortcomings, still meets the requirements.
- 5 = Poor - a performance with considerable shortcomings that did not meet the requirements.

For a more precise evaluation of the performance intermediate values between 1.0 and 4.0 can be used by decreasing or increasing the grade by 0.3. Valid values are thus 1.0, 1.3, 1.7, 2.0, 2.3, 2.7, 3.0, 3.3, 3.7, 4.0 and 5.0. The grade of the written thesis contributes 80% and the grade for the oral defense contributes 20% of the overall Master Thesis Module grade. Since both the written thesis and the oral defense are evaluated by two examiners, the grade for each of these will be calculated by the arithmetic mean of examiner's individual arithmetic mean.

In general, the oral defense of the MSc thesis should take place by the end of the fourth term. To allow all supervisors and reviewers to be present at the oral defense, some planning ahead is required. As a centrally organized date for oral defenses in the SCAN program, the "Master Thesis Defense Colloquium" takes place at the end of September. While it is highly recommended to aim for this date and inform all those involved early about it, partaking in this colloquium is not formally mandatory. If an oral defense is scheduled at another time, the responsibility for its organization lies with the student.

Recommendations

In order to complete the MSc program after four semesters with the Master Thesis module the following recommendations apply

- Potential research groups and supervisors for the MSc thesis project should be identified during the second term (April - July).
- The research experience internship, which usually takes place in the third term (September - December), should be planned in conjunction with the MSc thesis project. Work carried out during the research internship can be part of the MSc thesis project, or serve as training for methods that will be used in the MSc thesis project. It is advisable to plan the course of the entire second year in the second term as a joint endeavor.

- The “MSc Thesis Proposal Colloquium” of the Research Workshop takes place in the last week of the third term (mid-February). A good time to formally register the MSc thesis is briefly after this workshop.
- The “Master Thesis Defense Colloquium” takes place at the end of the fourth term (end of September). The thesis supervisor should be informed about the specific date as early as possible, so that she/he can attend the defense of the thesis project.

Applications and Forms

All applications and forms are available from the [examination office website](#).