



**rijksuniversiteit
groningen**

faculty of science and
engineering

behavioural and
cognitive neurosciences

Appendices for the Master's degree programme in Behavioural and Cognitive Neurosciences (research master) 2025-2026

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Appendix I

Learning outcomes of the degree programme (art. 3.1)

The general purpose of the master's degree programme is reflected in the following list of qualifications to be achieved by the graduates of the programme.

| Learning outcomes of the BCN research master programme | Dublin descriptors |
|--|--|
| <p><i>Students have acquired</i></p> <ol style="list-style-type: none"> 1. specialized knowledge in one of the three subfields of behavioural, cognitive or medical neurosciences and can use this knowledge to explain in details the relevant concepts, using the appropriate terminology for their field. 2. a broad overview of contemporary issues in the area of behaviour, cognition, and neurosciences. 3. knowledge of the current research methodology (experimental design, data analysis) in the area of behaviour, cognition, and neurosciences. 4. knowledge to work in a multidisciplinary/interdisciplinary environment | <p>Knowledge and Understanding Students have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context.</p> |
| <p><i>Students have demonstrated</i></p> <ol style="list-style-type: none"> 5. the ability to design scientific research, taking into account the limitations of available information and scientific problems in behaviour, cognition and neuroscience. 6. the ability to determine and apply the best suitable experimental design using modern neuroscience techniques and research approaches. 7. an understanding of the need for multidisciplinary/interdisciplinary approaches and skills to investigate the working of the brain 8. understanding of how to act according to the guidelines of scientific integrity 9. the ability collaborate effectively and appropriately with peers in a multidisciplinary and/or multicultural team, taking multiple perspectives into account | <p>Applying knowledge and understanding Students can apply their knowledge and understanding, and problem-solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.</p> |
| <p><i>Students have demonstrated the ability to</i></p> <ol style="list-style-type: none"> 10. evaluate scientific results, views and concepts with an open-minded but critical attitude 11. independently investigate and critically evaluate scientific literature from different countries across the world. 12. evaluate (societal and ethical) effects of applications in a variety of geographical contexts 13. reflect on the social and ethical responsibilities linked to the application of their knowledge and judgement. | <p>Making judgements The student is able to make judgments based on incomplete or limited information while taking into account social and ethical responsibilities, which are associated with applying one's own knowledge and judgments.</p> |



| | |
|---|--|
| <p><i>Students have demonstrated the ability to</i></p> <p>14. discuss scientific research in written and verbal form to both specialist and non-specialist audiences, taking into account the limitations of their conclusions.</p> | <p>Communication</p> <p>Students can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously.</p> |
| <p><i>Students have demonstrated the ability to</i></p> <p>15. independently acquire new knowledge and skills that are relevant for their professional career.</p> <p>16. identify and address issues inside as well as outside the main subject area, therefore and thereby gaining new knowledge and skills, in a short period of time.</p> <p>17. 17. apply knowledge and skills aimed at developing a successful international scientific career and the ability to judge whether they meet these requirements.</p> <p>18. have a general work orientation that is required for participation in an international research team, contributing to collective goals, effective time management, and participation in a research network</p> | <p>Learning skills</p> <p>Students have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.</p> |



Appendix II

Tracks of the master's degree programme (art. 3.6)

The master's degree programme comprises three tracks. Students can choose to follow one of the tracks:

- Animal and Human Behavioural Neurosciences (B-track)
- Cognitive Neuroscience and Cognitive Modelling (C-track)
- Molecular and Clinical Neurosciences (N-track)

Appendix III

Content of master's degree programme (art. 3.8)

The master's degree programme consists of:

1. Overall programme:

| Module | ECTS | Course code | Entry requirements | Comments |
|-----------------------------|---------|-------------|------------------------|---|
| First year | | | | |
| Introduction to BCN | 3 | WMBC007-03 | - | - |
| Career Related Topics | 2 | WMBC012-02 | - | - |
| Track-specific Modules | 15 / 20 | | | B and N-track; 15 ECTS, C-track: 20 ECTS |
| Track elective | 5 / 0 | - | - | B and N-track: 5 ECTS, C-track; 0 ECTS |
| Advanced Statistics for BCN | 5 | - | - | |
| Minor Research Project | 30 | WMBC902-30 | - | -Students are required to participate twice in the summer symposium: Once after the minor research project and once after the major research project. |
| Second year | | | | |
| Optional Modules | 15 | - | | Modules from the list in appendix IV. Students in the second year choose three of these modules. Entry requirements may differ per course unit. |
| Colloquium | 5 | WMBC021-5 | | |
| Major Research Project | 40 | WMBC901-40 | Minor Research Project | |

Type of assessments per course and whether there is a practical is determined in the assessment plan of the programme.



2. Track specific modules

B-track (15 ECTS)

| Module | ECTS | Course code | Entry requirements | Comments |
|---|------|-------------|--------------------|----------|
| Rhythms in brain function and behaviour | 5 | WMBCo25-05 | - | - |
| The Neuroendocrine Basis of Behaviour | 5 | WMBCo18-05 | - | - |
| Mechanisms of sensory-motor learning | 5 | WMBCo29-05 | - | - |

C-track (20 ECTS)

| Module | ECTS | Course code | Entry requirements | Comments |
|---------------------------------|------|-------------|--------------------|----------|
| Cognitive Neuroscience 1 | 5 | WMBCo27-05 | - | - |
| Functional Neuroscience C-track | 5 | WMBCo05-05 | - | - |
| Cognitive Neuropsychiatry | 5 | WMBCo13-05 | - | - |
| Cognitive Neuroscience 2 | 5 | WMBCo28-05 | - | - |

N-track (15 ECTS)

| Module | ECTS | Course code | Entry requirements | Comments |
|---------------------------------|------|-------------|--------------------|----------|
| Functional Neuroscience N-track | 5 | WMBCo06-05 | - | - |
| Pathology of the Nervous System | 5 | WMBCo09-05 | - | - |
| Stem Cell and Glia Biology | 5 | WMBCo17-05 | - | - |



Track electives for the B and N-track (5 ECTS)

| Module | ECTS | Course code | Entry requirements | Comments |
|--|------|-------------|--------------------|----------|
| Molecular and Cellular Neuroscience | 5 | WMBC016-05 | | |
| Laboratory Animal Science | 5 | WMBY026-05 | | |
| Evolutionary Medicine: Diseases of Affluence | 5 | WMBY025-05 | | |

Appendix IV Electives (art. 3.9.1)

The following list presents electives. They are divided into four categories:

- I. All track specific modules within the master's degree programme (see appendix III.2)
- II. BCN core-modules. These modules are especially designed for the BCN research master. The BCN research master ensures that these modules do not interfere with other modules offered by the master's degree programme. The following list presents the BCN core-modules.

| Module | ECTS | Course code | Entry requirements | Comments |
|--------------------------------|------|-------------|--------------------|----------|
| Behavioural Pharmacology | 5 | WMBC003-05 | - | - |
| Human Neuroanatomy | 5 | WMBC014-05 | - | - |
| Auditory and Visual Perception | 5 | WMBC002-05 | - | - |
| Membrane Biology and Disease | 5 | WMBC022-05 | - | - |

- III. BCN approved modules. No approval is needed for selecting these courses as optional course. However, master's degree programme cannot guarantee that these courses do not interfere with the other modules offered. It is the student's responsibility to ensure that the selected modules do not interfere. Modules can be chosen from different faculties, as presented in the following lists.



1. Modules organised by the Faculty of Science and Engineering

| Module | ECTS | Course code | Entry requirements | Comments |
|--|-------------|--------------------|----------------------------|-----------------|
| Psycholinguistics and Cognition | 5 | WMCC020-05 | - | - |
| User Modelling | 5 | WMCC021-05 | Cognitive Neuroscience 1&2 | Bi-annually |
| Cognitive Modelling | 5 | WMCC019-05 | - | - |
| Machine Learning for CCS | 5 | WMCC017-05 | - | - |
| Current Themes in Oncology | 5 | WMBM007-05 | - | - |
| Neurobiology of Nutrition | 5 | WMBM011-0 | - | - |
| Neurodegenerative Diseases | 5 | WMBM012-05 | - | - |
| Neurobiology of Psychiatric Disorders | 5 | WMBM018-05 | - | - |
| Nutrition, Brain Development and Cognition | 5 | WMBM020-05 | - | - |
| Molecular biology of ageing and age-related diseases | 5 | WMBM017-05 | - | - |
| Evolutionary Medicine Infectious diseases | 5 | WMBY024-05 | - | - |
| Evolutionary Medicine Diseases of affluence | 5 | WMBY025-05 | - | - |
| Big Data & Applications in Biomedicine | 5 | WMBM025-05 | - | - |
| Applied Statistics and Machine Learning | 5 | WMBM028-05 | - | - |
| Orientation on Non-academic Careers | 5 | WMBY032-05 | - | - |
| Behaviour, Ecology and Evolution | 10 | WMEV003-10 | - | - |

2. Modules organised by the Faculty of Behavioural and Social Sciences

| Module | ECTS | Course code | Entry requirements | Comments |
|---|-------------|--------------------|---------------------------|-----------------|
| Boundaries of Psychology | 5 | | - | - |
| Neuropsychology and psychiatric disorders | 5 | | - | - |



3. Modules organised by the Faculty of Arts

| Module | ECTS | Course code | Entry requirements | Comments |
|--|------|-------------|--------------------|----------|
| Advanced Topics in Natural Language Processing | 5 | LIX001M05 | - | - |
| Speech Science | 5 | LIX035M05 | | |

4. Modules organised by the Faculty of Philosophy

| Module | ECTS | Course code | Entry requirements | Comments |
|----------------------------|------|-------------|--------------------|----------|
| Philosophy of Neuroscience | 5 | | | - |

IV: Courses selected by students.

Upon request of the student, the Board of Examiners can give permission to follow a course that is not mentioned in category I, II or III.

The request procedure must be started at least 4 weeks before the beginning of the course. The procedure is started as soon as the Board of Examiners receives a request in which the permission is requested. The student must state the content and relevance of the selected course for their individual curriculum.

The Board of Examiners will decide on an individual basis if permission is granted. The student will be informed in writing about the decision on their permission within 1 week after the meeting of the Board of Examiners.

Appendix V

Entry requirements and compulsory order of examinations (art. 4.4)

Entry requirements for the minor and major thesis project:

1. Students are only allowed to start their minor thesis project if they have obtained a passing grade for at least two of the track-specific courses in their program.*
2. Students are only allowed to start their major thesis project after they have uploaded their minor thesis in the electronic repository of the University of Groningen.*

* Upon request of the student the Board of Examiners can give exemptions of the compulsory order of examinations.



**Appendix VI
Admission to the degree programme
(art. 2.1A.1 + art. 2.1B.1)**

1. Students in possession of an admission permit can be admitted to the degree programme.
2. Students who meet the requirements are provided with an admission permit by the Admissions Board.
3. An admission permit is only valid for the academic year following the academic year in which the permit is granted.
4. There may be other conditions attached to the admission permit. The requirements must be met before the master's degree programme has started.
5. The admission requirements comprise:
 - a bachelor's degree affiliated to the behavioural, cognitive and/or neurosciences, this will be judged by the Board of Admissions;
 - sufficient knowledge of the English language;
 - sufficient knowledge of the relevant sciences;
 - a suitable attitude, motivation and talent to follow the master's degree programme.
6. Students apply to the admission procedure by sending in the following documents:
 - a completed application form;
 - a curriculum vitae;
 - a document that proves sufficient proficiency in the English language;
 - a survey of the study results attained in academic courses so far;
 - a letter of motivation in which the student states why s/he wants to follow the master's degree programme in particular (including which track) and what his/her expectations and ambitions are;
 - (if desired) results of former research projects, like reports or articles;
 - the names of two scientists willing to provide personal information on the applicant;
 - (if desired) other documents that the student thinks useful in furthering his/her application.

International students (these are students with a non-Dutch Bachelor degree) need to submit their application via the online application system of the University of Groningen to the Admissions Office.

Deadlines for all applicants

| If student applies by: | Decision is communicated to the student by: |
|-------------------------------|--|
| December 1 | January 15 |
| February 1 | March 1 |
| March 15 | April 15 |
| May 1 | June 15 |



After a positive decision, the candidate has 4 weeks to accept the place.

7. Only students with the relevant and appropriate background (degree, course work, and practical experiences) will be considered for admission. Priority for admission is determined by GPA (especially in relevant courses). Additional consideration is then given to motivation, diversity, and international experiences.

8. The applicants will be informed in writing about the decision on their admission within 10 working days after the deadline for submission. This may be a tentative decision, conditional on further information to be supplied by the candidate.



Appendix VII. Pre-master programmes

The MSc degree programme does not offer pre-master programmes.

Appendix VIII. Transitional provisions (art. 7.1)

Not applicable

**Appendix IX. Additional Requirements Open degree
 Programmes (art. 3.10)**

Not applicable