Faculty

The Master program Neuroscience is jointly hosted by the School for Mathematics and Science and by the School for Medicine and Health Sciences at University of Oldenburg.

Our interdisciplinary faculty comes from the departments Neuroscience, Biology & Environmental Science, Psychology, Human Medicine and Medical Physics & Acoustics.

Application

Application Requirements

- B.Sc. in Neuroscience, Biology, Psychology, Computer Science, Engineering or other related discipline.
- Completed at least 12 CP courses in neuroscience and 12 CP courses in mathematics/statistics/programming. 6 CP of these 24 CP can be completed after admission to the program.
- Proof of English proficiency, level B2.
- Motivation letter, written in English.

Application Procedure

Applicants with German entrance qualification

- Application period May 1 - 31
  - www.uni-oldenburg.de/i-amt

International applicants

- Applications should be filed by March 31
  - www.uni-assist.de

Admission will be given to the best students depending on final grade. Additional bonus points can be earned by internships or participation in neuroscience projects, scientific publications or awards, at least one semester studied abroad, social engagement or volunteer work.

Information

Master program homepage
- www.uni-oldenburg.de/en/master-neuroscience

Information requests about the program
- master-neuroscience@uni-oldenburg.de

General questions regarding studies in Oldenburg
- www.zsb.uni-oldenburg.de
- studienberatung@uni-oldenburg.de

Partner Institutions

- Forschungszentrum Neurosensorik
- University Oldenburg
- Oltech / PhD Neurosensoric Science and Systems
- Cluster of Excellence
- Hearing4All
- Collaborative Research Center
- The active auditory system
Why study Neuroscience in Oldenburg?

Focus: Sensory systems
Levels: From molecule to behavior
Science-oriented: Individual student research projects
Skills-oriented: Specific skills courses complement scientific education
Hands-on: Almost all courses include lab time or exercises
Intensive: Block courses focus on one topic at a time
International: All courses in English, optional semester abroad
Interdisciplinary: Teachers & students with mixed backgrounds, joint courses with Biology & Psychology
Flexible: Individual study plans, wide choice of courses
Personal: Small groups, close contact to teachers and scientists
Future perspectives in Oldenburg: Graduate school, cluster of excellence, collaborative science projects

Curriculum
The program takes 2 years to achieve 120 ECTS credit points. There are no mandatory courses except for the master thesis.

### Background Modules
Provide background knowledge on a neuroscientific topic. Courses for 8-20 students are organized in full-time blocks of 2-7 weeks and usually consist of lecture, seminar and hands-on practical parts.

- Molecular Genetics & Cell Biology: 15 CP
- Biochemical Concepts in Signal Transduction: 15 CP
- Neurosensory Science & Behavior: 9 + 6 CP
- Development & Evolution: 9 + 6 CP
- Computational Neuroscience: 9 + 6 CP
- Neurophysiology & Neuroanatomy: 9 + 6 CP
- Neurocognition & Psychophysics: 15 CP

### Research Modules
Are individual student research projects in the supervisor’s lab. The aim is to practice independent research, including experiments, background literature and presentation of results. Lab time lasts 6-7 weeks.

- Auditory Neuroscience: 15 CP
- Molecular Sensory Neuroscience: 15 CP
- Neural Basis of Perception: 15 CP
- Visual Neuroscience: 15 CP
- Computation in Sensory Systems: 15 CP
- Development & Evolution of the Auditory System: 15 CP
- External Research Project: 15 CP

### Skills Modules
Professional skills are developed in courses for up to 24 students.

- Neuroscientific Data Analysis in Matlab: 6 CP
- Statistical Programming in R: 6 CP
- Bioethics: 6 CP
- Molecular Mechanisms of Aging: 6 CP
- Laboratory Animal Science: 6 CP
- Scientific English: 6 CP

Elective
After approval by the program director, 30 CP (one semester) can be chosen from:

- All courses of the M.Sc. Neuroscience curriculum
- Courses of related Master programs, e.g. Biology, Neurocognitive Psychology, Audiology, Computer Science
- Up to one semester at an international university