















Issued on the basis of the resolution of the Engeren Fakultät of the Faculty of Mathematics and Natural Sciences of 25.04.2024 and after examination of legality by the Rectorate of 06.05.2024.

Cologne, 06.06.2024

The Dean  
of the Faculty of Mathematics and Natural Sciences of  
the University of Cologne

signed.

i.V. University Professor Dr.' Alga Zuccaro



## Appendix

### Services to be proven in accordance with § 2 paragraph 1

#### **(1) Additional admission requirements for the Master of Science in Genetics and Biology of Aging and Regeneration degree program are:**

- at least 40 credit points from at least three of the subject areas biochemistry, developmental/regeneration biology, genetics, immunology, molecular biology, animal physiology or cell biology,
- at least 35 further credit points in the fields of biochemistry, bioinformatics / biomathematics / computational biology, biophysics, botany / plant sciences, developmental / regeneration biology, evolutionary biology, genetics, immunobiology, microbiology, molecular biology, neurobiology / neurosciences, physiology, virology, cell biology and / or zoology,
- of which at least 30 credit points in the experimental / practical field of biochemistry, developmental / regeneration biology, genetics, immunology, microbiology, molecular biology, neurobiology, physiology, virology and / or cell biology,
- at least 5 additional credit points in basic mathematics, statistics and/or physics and
- at least 10 further credit points in Fundamentals of Inorganic Chemistry, Organic Chemistry, Physical Chemistry and/or Theoretical Chemistry.

#### **(2) Additional admission requirements for the Master of Science in Computational Biology program are:**

- at least 12 credit points in the fields of genetics and / or molecular biology,
- at least 60 further credit points from at least three of the subject areas of biochemistry, botany / plant sciences, developmental biology, evolutionary biology, genetics, microbiology, molecular biology, ecology, neurobiology / neurosciences, physiology or cell biology and
- at least 24 additional credit points in Fundamentals of Mathematics, Statistics, Physics, Bioinformatics and / or Biomathematics, of which at least 6 credit points in Bioinformatics / Computational Biology.

#### **(3) Additional admission requirements for the Master of Science in Ecology, Evolution and Environment degree program are:**

- at least 30 credit points in the fields of zoology and / or ecology and / or molecular biology and / or genetics,
- at least 45 additional credit points in the fields of biochemistry, bioinformatics / biomathematics, botany / plant sciences, developmental biology, microbiology, physiology and / or cell biology,

- at least 12 additional credit points from the Bachelor's thesis in the fields of ecology, zoology, biochemistry, bioinformatics / computational biology, botany / plant sciences, developmental biology, genetics, microbiology, molecular biology, neurobiology / neurosciences, physiology and / or cell biology and

- at least 5 additional credit points in mathematics and / or statistics and / or bioinformatics and / or biophysics.

**(4) Additional admission requirements for the Master of Science in Molecular Plant and Microbial Sciences program are:**

- at least 50 credit points from at least three of the following disciplines: biochemistry, bioinformatics / biomathematics, botany / plant sciences, developmental biology, genetics, microbiology, molecular biology, ecology, neurobiology / neurosciences, physiology or cell biology,

- of which at least 20 credit points in the experimental / practical field of biochemistry, bioinformatics / biomathematics, botany / plant sciences, developmental biology, genetics, microbiology, molecular biology, ecology, neurobiology / neurosciences, physiology and / or cell biology as well as

- at least 10 additional credit points in basic mathematics, statistics, physics, inorganic chemistry, organic chemistry and / or physical chemistry.

**(5) Additional admission requirements for the Master of Science in Neuroscience degree program are:**

- at least 4 credit points from the fields of neurobiology / neuroscience or animal physiology,

- at least 12 additional credit points from at least two of the following disciplines: biochemistry, bioinformatics, biomathematics, developmental biology, genetics, molecular biology, cell biology, biophysics, cognitive sciences, robotics, behavioral biology or ecology,

- at least 6 credit points in the experimental / practical field of biochemistry, developmental biology, genetics, molecular biology / cell biology, neurobiology / neuroscience, psychology, experimental physics and / or chemistry as well as

- at least a further 10 credit points from the fields of mathematics, statistics, physics, physical chemistry, inorganic chemistry and/or organic chemistry.