

Appendices for the Bachelor's degree programme in Biology 2023/2024

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Appendix I Learning outcomes of the Bachelor's degree programme (Article 3.1.1)

Graduates are able to:

1. Explain general basic principles of biology and describe how they relate to each other;
2. Estimate the relevance of research results in one or more areas of biology published in academic journals and discuss these results with peers;
3. Describe fundamental and/or applied scientific research and recognize areas of interest within it;
4. Describe the relationship between various disciplines and integrate terms and concepts from the subject areas;
5. Recognise and analyse scientific problems, and design a scientific/academic approach to them in a systematic manner.
6. Under supervision, formulate a research hypothesis or propose a research design within their own discipline, and possess sufficient practical skills to conduct the research themselves;
7. Explain the societal relevance of the discipline, evaluate the related responsibilities and judge their individual role in that context.
8. Develop a work method independently and proactively, justify it, and carry it out in order to achieve a specific aim;
9. Contribute to and take responsibility for solving a specific problem or task in a specific role as part of a team;
10. Report about research in a structured manner, both orally and in writing;

The degree programme also offers the student:

11. To explore career opportunities and opportunities for follow-on degree programmes.

Appendix II Majors and Minors of the degree programme (Article 3.7.4)

The degree programme has the following Major(s):

- Behaviour and Neurosciences (BN)
- Biomedical Sciences (BMS)
- Ecology and Evolution (EE)
- Integrative Biology (IB)
- Molecular Life Sciences (MLS)

The degree programme has the following Minor(s):

- Minor Biomedical Life Sciences
- Minor Ecology & Evolution

Students can also participate in:

- Faculty minor programmes;
- University minor programmes
 - The minor programme “Neuroscience” is not accessible for students from the Bachelor’s degree programme Biology
- Minor programmes at other national universities;
- Minor programmes at international universities.

Appendix III Course units in the propaedeutic phase

- List of course units; Article 4.1.1
- Compulsory order of examinations; Article 9.3

First semester (all majors):

Course unit name	Course code	ECTS	Entry requirements
Basic Cell and Molecular Biology	WBBY001-05	5	n/a
Biostatistics 1	WBBY014-05	5	n/a
First Year Symposium	WBBY017-02	2	n/a
Genetics, Ecology & Evolution	WBBY005-05	5	n/a
Lab Course	WBBY021-03	3	n/a
Microbiology	WBBY022-05	5	n/a
Physiology	WBBY011-05	5	n/a

Second semester:

Majors Behaviour and Neurosciences, Biomedical Sciences, Molecular Life Sciences

Course unit name	Course code	ECTS	Entry requirements
Behavioural Neurosciences	WBBY026-05	5	n/a
Cell Biology and Immunology	WBBY033-05	5	n/a
Metabolism	WBBY058-05	5	n/a
Molecules of Life	WBBY047-05	5	n/a
*Research Skills in Life Sciences 1	WBBY066-02	2	Yes (see Art. 4.4.1.)
*Research Skills in Life Sciences 2	WBBY067-03	3	
*Research Skills in Life Sciences 3	WBBY068-05	5	

Major Ecology & Evolution

Course unit name	Course code	ECTS	Entry requirements
Behavioural Neurosciences	WBBY026-05	5	n/a
Biochemistry and Cell Biology in Ecology and Evolution	WBBY029-05	5	n/a
Ecophysiology of Plants and Animals	WBBY052-05	5	n/a
Evolutionary Ecology	WBBY038-05	5	n/a
*Research Skills in Ecology and Evolution 1	WBBY079-02	2	Yes (see Art. 4.4.2.)
*Research Skills in Ecology and Evolution 2	WBBY080-05	5	
*Research Skills in Ecology and Evolution 3	WBBY081-03	3	

Major Integrative Biology

Students who want to follow the major Integrative Biology have to follow **one** route in semester 2. They can choose from the following routes:

BMS/BN/MLS route

Course unit name	Course code	ECTS	Entry requirements
Behavioural Neurosciences	WBBY026-05	5	n/a
Cell Biology and Immunology	WBBY033-05	5	n/a
Metabolism	WBBY058-05	5	n/a
Molecules of Life	WBBY047-05	5	n/a
*Research Skills in Life Sciences 1	WBBY066-02	2	Yes (see Art. 4.4.1.)
*Research Skills in Life Sciences 2	WBBY067-03	3	
*Research Skills in Life Sciences 3	WBBY068-05	5	

EE route

Course unit name	Course code	ECTS	Entry requirements
Behavioural Neurosciences	WBBY026-05	5	n/a
Biochemistry and Cell Biology in Ecology and Evolution	WBBY029-05	5	n/a
Ecophysiology of Plants and Animals	WBBY052-05	5	n/a
Evolutionary Ecology	WBBY038-05	5	n/a
*Research Skills in Ecology and Evolution 1	WBBY079-02	2	Yes (see Art. 4.4.2.)
*Research Skills in Ecology and Evolution 2	WBBY080-05	5	
*Research Skills in Ecology and Evolution 3	WBBY081-03	3	

Appendix IV Course units in the post-propaedeutic phase

- **List of course units; Article 7.1.1**
- **Compulsory order of examinations; Article 9.3**

4.1. Major-specific requirements

The post-propaedeutic phase is composed of 90 ECTS major-specific course units (described below for each major), plus a minor programme of 30 ECTS.

Students who have not completed the propaedeutic phase are not allowed to enroll for more than 15 ECTS in one period (e.g. period 1a) including re-examinations. Students who have not passed first-year courses need to prioritise these when enrolling for second-year courses.

4.1.1. Major Biomedical Sciences

Compulsory course units (50 ECTS)

Course unit name	Course code	ECTS	Entry requirements
*Bachelor's Thesis Life Sciences	WBBY901-05	5	Yes (see Art. 4.4.7.)
Bioinformatics	WBBY002-05	5	n/a
Biology & Society: Ethical and Professional Aspects	WBBY049-05	5	n/a
Host-microbe Interactions	WBBY019-05	5	n/a
Immunology	WBBY020-05	5	n/a
Integrative Neuroscience or Medical Structural Biology	WBBY006-05 WBBY007-05	5	n/a n/a
Modelling Life	WBBY024-05	5	n/a
Molecular Genetics	WBBY008-05	5	n/a
*Research Project Biomedical Sciences	WBBY902-10	10	Yes (see Art. 4.4.6.)

Elective course units (40 ECTS)

Course unit name	Course code	ECTS	Entry requirements
Big Data in Human Disease	WBBY027-05	5	n/a
Biology of Cancer	WBBY030-05	5	n/a
Biomedical Research Laboratory Course	WBBY082-05	5	n/a
Bio-organic Chemistry	WBBY050-05	5	n/a
Cardiovascular Disease	WBBY051-05	5	n/a
Competences and Professionalization in Biology	WBBY076-05	5	n/a
Endocrinology	WBBY035-05	5	n/a
Epigenetics and Gene-editing	WBBY036-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
Food and Metabolism	WBBY041-05	5	n/a
Hematopoietic Stem Cells, Differentiation and Development	WBBY055-05	5	n/a
Human Genetics and Genomics	WBBY042-05	5	n/a
Immunology and Disease	WBBY043-05	5	n/a
Integrative Neuroscience	WBBY006-05	5	n/a
Medical Cell Biology	WBBY045-05	5	n/a
Medical Physiology	WBBY057-05	5	n/a
Medical Structural Biology	WBBY007-05	5	n/a
Microbes and Infection	WBBY059-05	5	n/a
Molecular Research in Human Disease	WBBY061-05	5	n/a
Neurobiology of Ageing	WBBY062-05	5	n/a
Psychobiology	WBBY063-05	5	n/a

4.1.2. Major Behaviour and Neurosciences

Compulsory course units (50 ECTS)

Course unit name	Course code	ECTS	Entry requirements
*Bachelor's Thesis Life Sciences	WBBY901-05	5	Yes (see Art. 4.4.7.)
Behavioural Biology	WBBY013-05	5	n/a
Biology & Society: Ethical and Professional Aspects	WBBY049-05	5	n/a
Chronobiology <i>or</i> Bioinformatics <i>or</i> Genes and Evolution	WBBY003-05 WBBY002-05 WBBY004-05	5	n/a n/a n/a
Genes and Behaviour <i>or</i> Immunology	WBBY018-05 WBBY020-05	5	n/a
Integrative Neuroscience	WBBY006-05	5	n/a
Modelling Life	WBBY024-05	5	n/a
Molecular Genetics	WBBY008-05	5	n/a
*Research Project Behaviour & Neurosciences	WBBY903-10	10	Yes (see Art. 4.4.6.)

15 ECTS from the following course units

Course unit name	Course code	ECTS	Entry requirements
Biology of Human Behaviour	WBBY031-05	5	n/a
Endocrinology	WBBY035-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
Neurobiology of Ageing	WBBY062-05	5	n/a
Psychobiology	WBBY063-05	5	n/a

Elective course units (25 ECTS)

Course unit name	Course code	ECTS	Entry requirements
Big data in Human Disease	WBBY027-05	5	n/a
Bioinformatics	WBBY002-05	5	n/a
Biology of Human Behaviour	WBBY031-05	5	n/a
Biomedical Research Laboratory Course	WBBY082-05	5	n/a
Biostatistics II	WBBY032-05	5	n/a
Chronobiology	WBBY003-05	5	n/a
Competences and Professionalization in Biology	WBBY076-05	5	n/a
Endocrinology	WBBY035-05	5	n/a
Epigenetics and Gene-editing	WBBY036-05	5	n/a
Evolution and Development	WBBY037-05	5	n/a
Evolutionary and Ecological Genomics	WBBY054-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
*Evolutionary Processes	WBBY040-05	5	Yes (see Art. 4.4.4.)
Food and Metabolism	WBBY041-05	5	n/a
Genes and Behaviour	WBBY018-05	5	n/a
Genes and Evolution	WBBY004-05	5	n/a
Human Genetics and Genomics	WBBY042-05	5	n/a
Immunology	WBBY020-05	5	n/a
Integrative Biology	WBBY056-05	5	n/a
Medical Physiology	WBBY057-05	5	n/a
Microbes and Infection	WBBY059-05	5	n/a
Microbiome	WBBY060-05	5	n/a
Neurobiology of Ageing	WBBY062-05	5	n/a
Psychobiology	WBBY063-05	5	n/a

4.1.3. Major Molecular Life Sciences

Compulsory course units (75 ECTS)

Course unit name	Course code	ECTS	Entry requirements
*Bachelor's Thesis Life Sciences	WBBY901-05	5	Yes (see Art. 4.4.7.)
Bioinformatics	WBBY002-05	5	n/a
Biology & Society: Ethical and Professional Aspects	WBBY049-05	5	n/a
Bio-organic Chemistry	WBBY050-05	5	n/a
Cell Biology and Microscopy	WBBY034-05	5	n/a
Cell Migration and Communication	WBBY072-05	5	n/a
Enzymology and Thermodynamics	WBBY053-05	5	n/a
Host-microbe Interactions	WBBY019-05	5	n/a
Immunology	WBBY020-05	5	n/a
Integrative Neuroscience or Medical Structural Biology	WBBY006-05 WBBY007-05	5	n/a n/a
Modelling Life	WBBY024-05	5	n/a
Molecular Genetics	WBBY008-05	5	n/a
Practical Carrousel	WBBY048-05	5	n/a
*Research Project Molecular Life Sciences	WBBY904-10	10	Yes (see Art. 4.4.6.)

10 ECTS from the following course units

Course unit name	Course code	ECTS	Entry requirements
Bioanalytical and Omics Techniques	WBBY073-05	5	n/a
Biotechnology	WBBY074-05	5	n/a
Programming for Life Sciences	WBBY075-05	5	n/a

Elective course units (5 ECTS)

Course unit name	Course code	ECTS	Entry requirements
Bioanalytical and Omics Techniques	WBBY073-05	5	n/a
Biology of Cancer	WBBY030-05	5	n/a
Biotechnology	WBBY074-05	5	n/a
Competences and Professionalization in Biology	WBBY076-05	5	n/a
Endocrinology	WBBY035-05	5	n/a
Epigenetics and Gene-Editing	WBBY036-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
Food and Metabolism	WBBY041-05	5	n/a
Human Genetics and Genomics	WBBY042-05	5	n/a
Immunology and Disease	WBBY043-05	5	n/a
Integrative Neuroscience	WBBY006-05	5	n/a
Medical Cell Biology	WBBY045-05	5	n/a
Medical Structural Biology	WBBY007-05	5	n/a
Microbes and Infection	WBBY059-05	5	n/a
Programming for Life Sciences	WBBY075-05	5	n/a

4.1.4. Major Ecology and Evolution

Compulsory course units (55 ECTS)

Course unit name	Course code	ECTS	Entry requirements
*Bachelor's Thesis Life Sciences	WBBY901-05	5	Yes (see Art. 4.4.7.)
Behavioural Biology <i>or</i> C++ for Biologists	WBBY013-05 WBBY015-05	5	n/a n/a
Biology & Society: Ethical and Professional Aspects	WBBY049-05	5	n/a
Biostatistics II	WBBY032-05	5	n/a
Genes and Behaviour <i>or</i> Conservation Biology	WBBY018-05 WBBY016-05	5	n/a n/a
Genes and Evolution	WBBY004-05	5	n/a
Modelling Life	WBBY024-05	5	n/a
*Research Project Ecology & Evolution 1 <i>or</i> *Research Project Ecology & Evolution 2	WBBY905-10 WBBY906-10	10	Yes (see Art. 4.4.6. & Art. 4.4.6.1.)
*Systems Ecology & Ecological Interactions 1	WBBY070-05	5	Yes (see Art. 4.4.3.)
*Systems Ecology & Ecological Interactions 2	WBBY071-05	5	Yes (see Art. 4.4.3.)

Elective course units (35 ECTS)

Course unit name	Course code	ECTS	Entry requirements
Behavioural Biology	WBBY013-05	5	n/a
Big Data Management in Ecology and Evolution	WBBY028-05	5	n/a
Biology of Human Behaviour	WBBY031-05	5	n/a
C++ for Biologists	WBBY015-05	5	n/a
Competences and Professionalization In Biology	WBBY076-05	5	n/a
Conservation Biology	WBBY016-05	5	n/a
*Ecological and Evolutionary Modelling	WBBY083-05	5	Yes (see Art. 4.4.5.)
Evolution and Development	WBBY037-05	5	n/a
Evolutionary and Ecological Genomics	WBBY054-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
*Evolutionary Processes	WBBY040-05	5	Yes (see Art. 4.4.4.)
Genes & Behaviour	WBBY018-05	5	n/a
Human Genetics and Genomics	WBBY042-05	5	n/a
Integrative Biology	WBBY056-05	5	n/a
Marine Biology	WBBY044-05	5	n/a
Microbiome	WBBY060-05	5	n/a
*Research Project Ecology & Evolution 1	WBBY906-10	10	Yes (see Art. 4.4.6. & Art. 4.4.6.1.)
*Research Project Ecology & Evolution 2	WBBY905-10	10	Yes (see Art. 4.4.6. & Art. 4.4.6.1.)

4.1.5. Major Integrative Biology

Compulsory course units (75 ECTS)

Course unit name	Course code	ECTS	Entry requirements
*Bachelor's Thesis Life Sciences	WBBY901-05	5	Yes (see Art. 4.4.7.)
Behavioural Biology or Host-Microbe Interactions or C++ for Biologists	WBBY013-05 WBBY019-05 WBBY015-05	5	n/a n/a n/a
Biology & Society: Ethical and Professional Aspects	WBBY049-05	5	n/a
Biostatistics II <i>Biostatistics II is only compulsory for IB students who want to follow a Research Project within the research area of ecology or evolution in year 3.</i>	WBBY032-05	5	n/a
Chronobiology or Bioinformatics or Genes and Evolution	WBBY003-05 WBBY002-05 WBBY004-05	5	n/a n/a n/a
Evolution and Development	WBBY037-05	5	n/a
Evolutionary Medicine	WBBY039-05	5	n/a
Genes and Behaviour or Immunology or Conservation Biology	WBBY018-05 WBBY020-05 WBBY016-05	5	n/a n/a n/a
Integrative Biology	WBBY056-05	5	n/a
Integrative Neuroscience	WBBY006-05	5	n/a
Modelling Life	WBBY024-05	5	n/a
Molecular Genetics	WBBY008-05	5	n/a
*Research project Integrative Biology 1	WBBY907-10	10	Yes (see Art. 4.4.6. & Art. 4.4.6.2.)
*Research project Integrative Biology 2	WBBY908-10	10	Yes (see Art. 4.4.6. & Art. 4.4.6.2.)

Elective course units (15 ECTS)

Course unit name	Course code	ECTS	Entry requirements
<i>A course unit from the major Biomedical Sciences, Behaviour and Neurosciences, Molecular Life Sciences, or Ecology & Evolution</i>	n/a	5	Depends on chosen course unit
Behavioural Biology	WBBY013-05	5	n/a
Bioinformatics	WBBY002-05	5	n/a
Biology of Human Behaviour	WBBY031-05	5	n/a
Biostatistics II	WBBY032-05	5	n/a
C++ for Biologists	WBBY015-05	5	n/a
Chronobiology	WBBY003-05	5	n/a
Competences and Professionalization in Biology	WBBY076-05	5	n/a
Conservation Biology	WBBY016-05	5	n/a
*Ecological and Evolutionary Modelling	WBBY083-05	5	Yes (see Art. 4.4.5.)
Genes and Behaviour	WBBY018-05	5	n/a
Genes and Evolution	WBBY004-05	5	n/a
Host-Microbe Interactions	WBBY019-05	5	n/a
Immunology	WBBY020-05	5	n/a
Marine Biology	WBBY044-05	5	n/a
Microbiome	WBBY060-05	5	n/a

4.2. Minor programmes

Minors in the Life Sciences

The Bachelor's degree programme Biology offers its students two minors within the Life Sciences.

- Minor Biomedical Life Sciences

Accessible to students following the major EE.

Course unit name	Course code	ECTS	Entry requirements
Bioinformatics or Chronobiology	WBBY002-05 WBBY003-05	5	n/a n/a
Host-Microbe Interactions	WBBY013-05	5	n/a
Immunology	WBBY020-05	5	n/a
Integrative Neuroscience or Medical Structural Biology	WBBY006-05 WBBY007-05	5	n/a n/a
Minor congress	WBBY023-05	5	n/a
Molecular Genetics	WBBY008-05	5	n/a

- Minor Ecology & Evolution

Accessible to students following the major BMS, BN, MLS, or IB¹

Course unit name	Course code	ECTS	Entry requirements
Behavioural Biology or C++ for Biologists	WBBY013-05 WBBY015-05	5	n/a n/a
Genes & Behaviour or Conservation Biology	WBBY018-05 WBBY016-05	5	n/a n/a
Genes & Evolution	WBBY004-05	5	n/a
Minor Congress	WBBY023-05	5	n/a
*Systems Ecology & Ecological Interactions 1	WBBY070-05	5	Yes (see Art. 4.4.3.)
*Systems Ecology & Ecological Interactions 2	WBBY071-05	5	Yes (see Art. 4.4.3.)

University minor "Neuroscience"

The Bachelor's degree programme Biology is also responsible for the University minor "Neuroscience". This minor is not accessible to students from the Bachelor's degree programme Biology

Course unit name	Course code	ECTS	Entry requirements
Neuroscience	WBBY009-15	15	n/a
*Behavioural Neuroscience	WBBY010-15	15	Yes (see Art. 4.4.8.)

4.3. Courses with one or several practical components

The course units listed in Appendix IV have a strong integration of practicals, lectures, and tutorials. Course units where the final assessment is not solely through a written exam are assessed through practicals. For further information, see OCASYS.

¹ Whether the minor is accessible to students from the major IB depends on their choice of electives in semester 1, Year 2.

4.4. Compulsory order of examinations

All course units in the curriculum are accumulative and assume knowledge, insight and skills to have been obtained in previous course units. Any deficiencies should be repaired as soon as possible.

Courses with specific entry requirements have been provided with a * in Art. 4.1.

4.4.1. Research Skills in Life Sciences 1, 2, and 3

This course unit (10 ECTS) consists of three different parts with separate course codes. Students are obliged to follow all three parts at the same time. Students cannot follow a part individually (except for resits).

4.4.2. Research Skills in Ecology and Evolution 1, 2, and 3

This course unit (10 ECTS) consists of three different parts with separate course codes. Students are obliged to follow all three parts at the same time. Students cannot follow a part individually (except for resits).

4.4.3. Systems Ecology & Ecological Interactions 1 & 2

Participation in the course “Systems Ecology & Ecological Interactions 1” is an entry requirement for participation in the course “Systems Ecology & Ecological Interactions 2”. An exception is made for students for whom the old curriculum course “Systeemecologie” is compulsory in their major.

4.4.4. Evolutionary Processes

Successful completion of the course “Genes & Evolution” is an entry requirement for participation in the course “Evolutionary Processes”.

4.4.5. Ecological and Evolutionary Modelling

Successful completion of the course “Modelling Life” is an entry requirement for participation in the course “Ecological and Evolutionary Modelling”.

4.4.6. Research Projects

All students need to have obtained the following entrance conditions before being able to start a major-specific Research Project in year 3 of the Bachelor’s programme:

- 90 ECTS
- Including the propaedeutic phase of the Bachelor’s programme Biology,
- Excluding the minor programme (30 ECTS).

Students can only follow the research project(s) of their chosen major programme. A student is excluded from participation in a major-specific research project when the student has already completed the research project(s) of another major programme. Consequently, students cannot graduate with two major programmes.

4.4.6.1. Students in the major Ecology & Evolution

In order to start a Research Project, students in the major Ecology & Evolution need to have followed the course Biostatistics II.

4.4.6.2. Students in the major Integrative Biology

Students who want to follow a Research Project within the research area of ecology or evolution need to have followed the course Biostatistics II.

4.4.7. Bachelor’s Thesis

All students need to have obtained the following entrance conditions before being able to start the Bachelor’s Thesis:

- Students must have completed all course units from the propaedeutic phase,
- Students must have earned at least 60 ECTS from the post-propaedeutic phase.

4.4.8. University minor “Neuroscience”

Participation in the course Neuroscience is an entry requirement for participation in the course Behavioural Neuroscience. This entry requirement does not apply to students of Medicine and Human Movement Sciences.

Appendix V Admission to the post-propaedeutic phase (Article 6.1.1)

The following candidates will be admitted to the post-propaedeutic phase:

- a. Students who have been issued a positive study advice from the bachelor degree programme Biology.

Students who have been issued a positive study advice from another degree programme will be assessed by the Admissions Board.

Appendix VI Contact hours propaedeutic and post-propaedeutic phase (Article 3.6)

8.1. Information about contact hours

The contact hours in the propaedeutic and post-propaedeutic phase in the bachelor Biology depend on the chosen major and the chosen course units throughout the bachelor programme. Students can expect an average of contact hours as listed below.

Degree programme year 1	
Structure contact hours	Average contact hours per year
Lectures	270
Tutorials	150
Practicals	200
Examinations	32

Degree programme year 2	
Structure contact hours	Average contact hours per year
Lectures	336
Tutorials	98
Practicals	183
Examinations	36

Degree programme year 3 (excl. minor programme)	
Structure contact hours	Average contact hours per year
Lectures	53
Tutorials	47
Practicals	250
Examinations	6

Appendix VII Additional Requirements Open degree Programmes (Art. 7.3)

Students who wish to pursue an open degree programme will have to file a request with the Board of Examiners. Any additional requirements to the open degree programme will be determined by the Board of Examiners and Programme director of the Bachelor's degree programme Biology.

Appendix VIII Transitional provisions (article 12.1)

Transitional arrangement for the Bachelor degree programmes Biology and Life Science & Technology (cohort 2017 and earlier)

11.1. Course units that are no longer part of the Biology curriculum as of 2023-2024

The course units in the first column are no longer part of the curriculum. These will be replaced by course units in column “Alternative options in 2023-2024”. The extensive table can be found on the next pages.

There are several course units in the new curriculum that have been provided with a new course title. However, some of these course units have the same content as a course unit in the old-curriculum. Therefore, students are not allowed to include the following course units next to each other in their individual course programme.

- Students who have passed the course unit "Medische Biologie en Moleculaire Biologie" are not allowed to follow the course unit "Epigenetics & Gene-editing".
Exception to this rule: students are allowed to have both course units in their course programme when both course units have been followed in academic year 19/20.
- Students who have passed the course unit “Medical Microbiology / Medische Microbiologie” are not allowed to follow the course unit "Microbes and Infection".
- Students can only enroll for the last chance exam(s) when they have already followed the lectures and practicals of the old curriculum course. Students can only enroll for the alternative course(s) when they have not followed the lectures and practicals of the old curriculum course.

11.2. Research project “Medische Farmaceutische Wetenschappen”

Students who follow the old-curriculum major Medisch Farmaceutische Wetenschappen (LST) and still have to complete a research course / project will have to contact the academic advisors. These students will be provided with an individual assignment via the bachelor degree programme Pharmacy.

Transitional Arrangement 2023/2024
Biology / Life Science & Technology

Course units no longer part of the curriculum	Year	Level	.	Alternative options in 2023/2024	Year	Code	Period	Level.
Age research ERIBA	3	3		Research Project BMS	3	WBBY902-10	2a or 2b	3
Anatomy and Histology	2	2		Anatomy and Physiology	1 (BME)	WBBE024-05	1b	2
Bachelor Research Project BME and Bachelor's Thesis BME	3	3		BME Bachelorproject	3 (BME)	WBBE901-15	2b	3
Bachelor's Research Project BME (without Bachelor's Thesis)	3	3		Contact the programme coordinator of BSc Biomedical Engineering	3 (BME)	WBBE016-10	n/a	3
Bachelor's Thesis BME (without Bachelor's Project BME)	3	3		Bachelor's Thesis Life Sciences	3 (BIO)	WBBY901-05	n/a	3
Big data in Systems medicine	2	3		Big Data in Human Disease (BMS/BN) or Big Data Management in Ecology and Evolution (EE)	2	WBBY027-05 WBBY028-05	2a3	3
Biochemie	1	1		Biochemistry and Cell Biology in Ecology and Evolution	1	WBBY029-05	2a3	1
Biochemie & Biofysische chemie	2	2		Spectroscopy	1 (Chemistry)	WBCH044-05	2b	2
Biokatalyse & Membraanenzymologie research	3	3		Research Project MLS	3	WBBY904-10	2b	3
Biological Implant Evaluation	2	3		Cell Biology & Immunology (for BME)	1 (BME)	WBBE035-05	1b	3
Biological Physics	1	n/a		Biophysics	1 (LST)	WBLT007-05	2a	n/a
Biomaterials 1	2	2		Biomaterials 1	1 (BME)	WBBE007-05	2b	2
Biomechanics	2	2		Biomechanics	1 (BME)	WBBE002-05	1b	2
Biomedical Instrumentation	3	3		Biomedical Instrumentation	2 (BME)	WBBE003-05	1a	3
Biomedisch Onderzoek	1	2		Research Skills in Life Sciences 1 (2 ECTS) and Research Skills in Life Sciences 2 (3 ECTS) and Research Skills in Life Sciences 3 (5 ECTS)	1 1 1	WBBY066-02 WBBY067-03 WBBY068-05	2b2+2b3	2
Biomedische Onderzoek 1	1	2		Research Skills in Life Sciences 1 (2 ECTS) and Research Skills in Life Sciences 2 (3 ECTS)	1 1	WBBY066-02 WBBY067-03	2b2+2b3	2
Biomedische Onderzoek 2	1	2		Research Skills in Life Sciences 3 (5 ECTS)	1	WBBY068-05	2b2+2b3	2
Biomoleculaire chemie research	3	3		Research Project MLS	3	WBBY904-10	2b	3
Biostatistiek N2	2	2		Biostatistics II	2	WBBY032-05	2a1	2
Biotechnologie	3	3		Old curriculum elective: choose <u>two</u> electives in the new curriculum	n/a	n/a	n/a	n/a
Cardiovasculair systeem	2	3		Cardiovascular Disease	2	WBBY051-05	2b1	3
Celbiologie	1	1		Basic Cell and Molecular Biology	1	WBBY001-05	1a	1
Celfysiologie: Energie & Structuur	1	1		Metabolism	1	WBBY058-05	2b1	1
Chronobiologie research	3	3		Research Project BN	3	WBBY903-10	2a or 2b	3
Community Ecology research	3	3		Research Project EE 1 or Research Project EE 2	3	WBBY905-10 WBBY906-10	2a 2b	3
Computer-aided Design (CAD)	1	n/a		Individual assignment	1	WPLS18020	n/a	n/a
Designing Biomedical Products 2	2	3		Design of Biomedical Products 2 (3 ECTS) + additional assignment (2 ECTS)	2 (BME)	WBBE008-03	1b	3
Designing Biomedical Products 3	3	3		Designing of Biomedical Products 3	3 (BME)	WBBE004-05	1a	3
Dierecologie research	3	3		Research Project BN or Research Project EE 1 or Research Project EE 2	3	WBBY903-10 WBBY905-10 WBBY906-10	2a or 2b 2a 2b	3
Diversiteit & Evolutie	1	1		Individual assignment	n/a	n/a	n/a	1

Diversiteit, Ecologie & Gedrag	1	1		<i>Individual assignment</i>	n/a	n/a	n/a	1
Drug Disposition & Toxicology research	3	3		Research Project BMS <i>or</i> Research Project BN <i>or</i> * <i>Research Project MFW</i>	3	WBBY902-10 WBBY903-10 * <i>n/a</i>	2a <i>or</i> 2b 2a <i>or</i> 2b * <i>n/a</i>	3
Ecological & Evolutionary Genomics research	3	3		Research Project EE 1 <i>or</i> Research Project EE 2	3	WBBY905-10 WBBY906-10	2a 2b	3
Ecologie & Gedrag	1	1		<i>Individual assignment</i>	n/a	n/a	n/a	1
Ecologische Interacties	2	2		Systems Ecology & Ecological Interactions 2	2	WBBY071-05	1a2	2
Eerstejaars Symposium	1	1		First-year Symposium	1	WBBY017-05	1b	1
Electronics	3	3		Electronics	3 (BME)	WBBE009-05	2a	3
Farmacoepidemiologie	2	3		Pharmacoepidemiology	2 (Pharm.)	WBFA028-05	2a3	3
Farmaceutische Analyse A	2	2		Pharmaceutical Analysis A	1 (Pharm.)	WBFA035-05	2b1	2
Farmaceutische Microbiologie	2	2		Pharmaceutical Microbiology	2 (Pharm.)	WBFA025-04	2a1	2
Farmaceutische Technologie en Biofarmacie	2	2		Pharmaceutical Technology and Biopharmacy 1	1 (Pharm.)	WBFA017-05	1b2	2
Farmacologie Practicum	2	2		Pharmacology Practical	3 (Pharm.)	WBFA019-05	1a3+1b1	2
Farmakokinetiek	2	3		Pharmacokinetics	2 (Pharm.)	WBFA018-05	1b1	3
Flora & Fauna	2	2		Research skills in Ecology & Evolution 2	1	WBBY065-05	2b3	2
Fysiologie & Therapie	1	1		Physiology & Pharmacology	1 (Pharm.)	WBFA020-05	1b3	1
Fysiologie Mens & Dier	1	1		Human Physiology	1 (Pharmacy)	WBFA022-03	2a	1
Fysiologie van Planten en Micro-organismen	1	1		Ecophysiology of Plants and Animals	1	WBBY052-05	2b1	1
Fysiologische Ecologie research	3	3		Research Project EE 1 <i>or</i> Research Project EE 2	3	WBBY905-10 WBBY906-10	2a 2b	3
Gedragsbiologie	2	2		Behavioural Biology	2	WBBY013-05	1b1	2
Gedragsbiologie research	3	3		Research Project BMS <i>or</i> Research Project BN <i>or</i> Research Project EE 1 <i>or</i> Research Project EE 2	3	WBBY902-10 WBBY903-10 WBBY905-10 WBBY906-10	2a <i>or</i> 2b 2a <i>or</i> 2b 2a 2b	3
Geneesmiddel Target tot Gebruik	1	1		<i>Individual assignment</i>	n/a	n/a	n/a	1
Genetica	1	1		Genetics, Ecology and Evolution	1	WBBY005-05	1a	1
Genomics and Proteomics	2	3		<i>Old curriculum elective: choose an elective in the new curriculum</i>	n/a	n/a	n/a	n/a
Hematologie	2	3		Hematopoietic Stem Cells, Differentiation and Development	2	WBBY055-05	2b2	3
Hersenen & Gedrag	1	1		Behavioural Neurosciences	1	WBBY026-05	2a1	1
Humane Gedragsbiologie	2	3		Biology of Human Behaviour	2	WBBY031-05	2a1	3
Imaging Techniques in Radiology 1	3	3		Imaging Techniques in Radiology 1	2 (BME)	WBBE012-05	2a	3
Immunologie & Infectieziekten research	3	3		Research Project BMS <i>or</i> * <i>Research Project MFW</i>	3	WBBY902-10 * <i>n/a</i>	2a <i>or</i> 2b * <i>n/a</i>	3
Immunologie 1	2	2		Immunology	2	WBBY020-05	1b2	2
Immunologie 2	2	3		Immunology and Disease	2	WBBY043-05	2a1	3
Infecties & Tumoren	2	3		Infections and Tumours	3 (Pharm.)	WBFA023-05	2a2	3
Inleiding Biomathematica & Biostatistiek	1	1		Mathematics & Statistics	1 (Pharm.)	WBMA021-05	1b1	1
Integratieve Neurobiologie	2	2		Integrative Neuroscience	2	WBBY006-05	1a2	2
Mariene Biologie research	3	3		Research Project EE 1 <i>or</i> Research Project EE 2	3	WBBY905-10 WBBY906-10	2a 2b	3
Material Science	2	2		Materials Science	2 (BME)	WBBE005-05	1b	2

Mathematics for Life Sciences	1	n/a	Calculus for LST or Calculus 1 (for IEM)	1 (LST) 1 (IEM)	WBLT006-05 WBIE003-05	1b 1a	n/a
Medical Implants	2	3	<i>Individual assignment</i>	2	WBBE013-05	2a2	3
Medical Microbiology	3	2	Microbes and Infection	2 (BIO)	WBBY059-05	2a	2
Medical Technology and Society	2	2	Biology and Society: Ethical and Professional Aspects LST and Society: Ethical and Professional Aspects	2 2	WBBY049-05 WBLT022-05	2b3 2b	2
Medisch Farmaceutisch Onderzoek	1	1	<i>Individual assignment</i>	n/a	n/a	n/a	1
Medische Celbiologie research	3	3	Research Project BMS or Research Project BN or * Research Project MFW	3	WBBY902-10 WBBY903-10 * n/a	2a or 2b 2a or 2b * n/a	3
Medische Genetica	2	2	<i>Old curriculum elective: choose an elective in the new curriculum BMS students: in order to meet the requirements of this major, follow Integrative Neuroscience which replaces Integratieve Neurobiologie.</i>	n/a	n/a	n/a	n/a
Medische Genomics & Proteomics	2	3	<i>Old curriculum elective: choose an elective in the new curriculum</i>	n/a	n/a	n/a	n/a
Metabole Regulatie research	3	3	Research Project BMS	3	WBBY902-10	2a or 2b	3
Metabolisme & Toxicologie	2	3	Metabolism and Toxicology	2 (Pharm.)	WBFA016-05	1b2 + 1b3	3
Metabolisme & Voeding	2	3	Food & Metabolism	2	WBBY041-05	2a1	3
Methodical Design 1	1	n/a	Designing biomedical products 1	1 (BME)	WBBE047-05	1a1	n/a
Microbiologie	2	2	Microbiology	1	WBBY022-05	1b	2
Microbiologie & Genetica research	3	3	Research Project MLS or Research Project EE 1 or Research Project EE 2	3	WBBY904-10 WBBY905-10 WBBY906-10	2b 2a 2b	3
Moleculaire & Cellulaire Microscopie	2	3	Cell Biology and Microscopy	2	WBBY034-05	2a1	3
Moleculaire Biologie & Medische Biologie	2	2	Epigenetics and Gene-editing	2	WBBY036-05	2a3	2
Moleculaire Celbiologie research	3	3	Research Project MLS	3	WBBY904-10	2b	3
Moleculaire Farmacologie research	3	3	Research Project BMS or Research Project BN or * Research Project MFW	3	WBBY902-10 WBBY903-10 * n/a	2a or 2b 2a or 2b * n/a	3
Moleculaire Genetica & Genomics	1	1	<i>Individual assignment</i>	n/a	n/a	n/a	1
Moleculaire Onderzoekstechnieken in Humane Ziektes	2	3	Molecular Research in Human Disease	2	WBBY061-05	2b1	3
Moleculen & Reactiviteit	1	1	Molecules of Life	1	WBBY047-05	2a2	1
Neurowetenschappen research	3	3	Research Project BMS or Research Project BN or Research Project EE 1 or Research Project EE 2	3	WBBY902-10 WBBY903-10 WBBY905-10 WBBY906-10	2a or 2b 2a or 2b 2a 2b	3
Numerical Methods	3	3	<i>Last chance exam Numerical Methods (23/24)</i> Numerical Methods (for iEM)	n/a 3 (IEM)	WBMA037-05 WBIE049-05	2a 1a	3
Oncologie research	3	3	Research Project BMS	3	WBBY902-10	2a or 2b	3
Ontwikkelingsbiologie en Regenerative Medicine research	3	3	Research Project BMS	3	WBBY902-10	2a or 2b	3
Pathofysiologie research	3	3	Research Project BMS or Research Project BN or * Research Project MFW	3	WBBY902-10 WBBY903-10 * n/a	2a or 2b 2a or 2b * n/a	3
Pathologie	1	1	<i>Individual assignment</i>	n/a	n/a	n/a	1
Practical Chemistry BME	2	3	Practical Skills in Organic Chemistry (for LST) Practical course: Synthesis and Analysis	2 (LST) 1 (Chemistry)	WBLT019-05 WBCH016-05	2a 1b	3

Practicum Anatomie & Fysiologie	1	1		<i>Individual assignment</i>	n/a	n/a	n/a	1
Practicum Chemie voor Levenswetenschappen	2	3		<i>Old curriculum elective: choose an elective in the new curriculum</i>	n/a	n/a	n/a	n/a
Practicum Minimale Cel	1	1		<i>Individual assignment</i>	n/a	n/a	n/a	1
Programming in Life Sciences	2	2		Programming for Life Sciences Programming for Life Sciences	1 (LST) 2 (Biology)	WBLT009-50 WBBY075-05	2b 2a3	2
Receptorfarmacologie	2	2		Receptor Pharmacology	1 (Pharm.)	WBFA036-05	2b2	2
Regenerative Medicine	3	2		Tissue engineering & Regenerative Medicine	3 (BME)	WBBE042-05	2a	2
Research Course BME	3	3		Research Course BME and Ethics 3: Research Ethics	3 (BME)	WBBE010-09 WBBE046-01	n/a	3
Research Skills in Ecology & Evolution 1	1	n/a		Research Skills in Ecology & Evolution 1 and Research Skills in Ecology & Evolution 3	1	WBBY079-02 WBBY081-03	2b	n/a
Signals and Systems	3	3		Signals and Systems Signals and Systems (for AI) Signals and Systems (for CS)	2 (IEM) 2 (AI) 2 (CS)	WBIE030-05 WBAI016-05 WBCS042-05	2a (IEM) 1b (AI) 1b (CS)	3
Structural Biology	2	3		Medical structural biology	2	WBBY007-05	1a2	3
Structural Biology research	3	3		Research Project MLS	3	WBBY904-10	2b	3
Systeemecologie	2	2		Systems Ecology & Ecological Interactions 1	2	WBBY070-05	1a1	2
Thermo, Kinetiek & Enzymologie	2	2		Enzymology and Thermodynamics	2	WBBY053-05	2b1	2
Thermodynamics	2	2		Thermodynamics	3 (Pharmacy)	WBFA021-05	1b3	2
Transport in Biological Systems	2	3		Transport in Biological Systems	2 (BME)	WBBE023-05	2b	3
Wetenschap, Ethiek, Technologie & Maatschappij	2	2		Biology and Society: Ethical and Professional Aspects LST and Society: Ethical and Professional Aspects	2 (BIO) 2 (LST)	WBBY049-05 WBLT022-05	2b 2b	2
				<i>* Students who follow the old-curriculum major Medisch Farmaceutische Wetenschappen and still have to complete a research course / project will have to contact the academic advisors. These students will be provided with an individual assignment via the bachelor degree programme Pharmacy.</i>				
				1. Students can only enroll for <u>the last chance exam(s)</u> when they have already followed the lectures and practicals of the old curriculum course. 2. Students can only enroll for <u>the alternative course(s)</u> when they have <u>not</u> followed the lectures and practicals of the old curriculum course.				