SCIENCES &
BIOENGINEERING SCIENCES

Faculty of Science and Bioengineering Sciences

CURRICULUM CHANGES

Changes and transitional measures

Academic year 2026-2027

Overview by programme

What is changing, and which arrangements apply to students who have already started?

How to use this overview?

This document brings together the curriculum changes and transitional measures for each programme. Find your programme in the overview and then read the following two sections:

- **What is changing?** The substantive change to the programme.
- **Transitional measure**: the arrangement for students who started before 2026-2027 or who still need to pass an affected course unit.

If in doubt, contact your study path counsellor.

Programmes

1. Master Computer Science
2. Master Chemistry
3. Master Geography
4. Master Marine and Lacustrine Science and Management
5. Master Molecular Biology
6. Master Physics and Astronomy
7. Master of Applied Informatics: Artificial Intelligence and Data Science, Big Data Technology
8. Master Urban Studies

Master Computer Science 01

What is changing?

Common compulsory package

- Security in Computing (6 ECTS, second semester) replaces Declarative Programming as a compulsory course unit in the first master's year.
- Declarative Programming (6 ECTS, first semester) moves to the elective lists for Artificial Intelligence and Software Systems, and to the list of electives from other specialisations for Data Management & Analytics and Multimedia.

Compulsory Multimedia package

- Image and Video Technology is increasing from 3 to 4 ECTS.
- 3D Graphics in VR will no longer be spread across both semesters and will be organised entirely in the second semester.

Discontinued electives

- Discrete Modeling, Optimization, and Search
- Processus Dynamiques
- Advanced Topics in Symbolic AI
- Multicore Programming

New electives

- Advanced Topics in (Neuro-)Symbolic AI (6 ECTS, first semester) is being introduced within Artificial Intelligence and will be available to the other three specialisations as an elective from another specialisation.
- Operating Systems for Heterogeneous Computing (6 ECTS, second semester) is being introduced within Software Systems and will be available to the other three specialisations as an elective from another specialisation.
- Evolution of Programming Languages (3 ECTS, second semester) moves from the bachelor's to the master's programme. The course will be offered within Software Systems and will be available to the other three specialisations as an elective from another specialisation.
- Programming Distributed and Replicated Systems (6 ECTS) moves from the first to the second semester. The separate proposal does not specify a particular specialisation; the change applies to every elective list in which the course is included.

Transitional measure

Declarative Programming
Students who have already passed Declarative Programming are not required to take Security in Computing.

Evolution of Programming Languages
Students who already passed Evolution of Programming Languages in their bachelor's programme before 2026–2027 may not take the course again in their master's programme.

Master Chemistry 02

What is changing?

- Scientific and Science Communication / Communicating Science (6 ECTS) is being discontinued and replaced by Scientific Presentation Skills and Career Planning (3 ECTS).
- ECTS changes
  - Integrated Theoretical and Organic Chemistry Practical (4→5 ECTS)
  - Chemometrics (3→4 ECTS)
  - Applications in Analytical and Environmental Sciences (6→5 ECTS)

Transitional measure

Common course unit (all specialisations) – Scientific and Science Communication / Communicating Science – Scientific Presentation Skills and Career Planning

- Students who have not yet taken Scientific and Science Communication / Communicating Science, or who took but did not pass it, must take Scientific Presentation Skills and Career Planning in their final master's year.
- Students who have already passed Scientific and Science Communication / Communicating Science retain the 6 ECTS and are exempt from Scientific Presentation Skills and Career Planning.
- Any missing credits (3 ECTS) resulting from this replacement must be made up with elective course units within the programme.

Chemical Theory, (Bio)Molecular Design and Synthesis specialisation: Integrated Theoretical and Organic Chemistry Practical (4 → 5 ECTS)

- Passed: 4 ECTS retained.
- Taken but not passed: assessment under the new course description (5 ECTS).
- Not taken: enrolment in the new version (5 ECTS).

Analytical and Environmental Chemistry specialisation: Chemometrics (3 → 4 ECTS), Applications in Analytical and Environmental Sciences (6 → 5 ECTS)

- Passed: original number of ECTS retained (3 or 6).
- Taken but not passed: assessment under the new course description.
- Not taken: enrolment in the new version (4 and 5 ECTS respectively).

General provision

Any deviations in the total number of credits will be discussed individually with the study path counsellor.

Master Geography 03

What is changing?

Profile Geo-Information Sciences

- Advanced Earth Observation Techniques (AEOT, 3 ECTS) and Remote Sensing of the Environment (RSE, 3 ECTS) are being merged into one integrated Advanced Earth Observation Techniques course (6 ECTS).
- Geospatial Information Technologies (6 ECTS) is split into Geospatial Technologies for Geography (3 ECTS) and Geo-AI for Geography (3 ECTS).

Profile Society and Space

- Greening the City (6 ECTS) is being renamed Nature and the City.

Electives being discontinued

- Economics and Development of Tourism Destinations
- Policy, Planning and Management of Mobility and Tourism Destinations
- Culture and Tourism
- Urban Anthropology

Transitional measure

Profile Geo-Information Sciences

- Students who took both AEOT (3 ECTS) and RSE (3 ECTS) in 2025–2026 but did not pass one or both retain the option of retaking the examinations for the former course units in 2026–2027. Separate examination opportunities and the necessary assessment materials will be provided.
- Students who took and passed only one of the two former course units must take the new Advanced Earth Observation Techniques course (6 ECTS) in 2026–2027. They are exempt from the components they have already taken and passed and will only be examined on the components not yet covered.
- Students who have successfully completed Geospatial Information Technologies (6 ECTS) do not take Geospatial Technologies for Geography (3 ECTS) or Geo-AI for Geography (3 ECTS).

Electives

The elective package changes with immediate effect. Credits already obtained remain valid.

Master Marine and Lacustrine Science and Management 04

What is changing?

Major 4 Marine and Lacustrine Geosciences

Major 4 will no longer be offered. The affected course units will remain available on a phase-out basis only in 2026-2027 and 2027-2028:

- Advanced Sedimentology
- Micropaleontology and Paleoenvironmental Reconstruction
- Integrated Offshore Exploration
- Paleoclimatology and Climate Change

Major 3 Environmental Impact and Remediation

- Integrated Practicals (3 ECTS) is being discontinued and replaced by Integrated Water Management: Case River 21 (University of Antwerp, 3 ECTS).

Major 2 Conservation Biology and Ecosystem Management

- Nature-based Solutions (University of Antwerp, 3 ECTS) is being added.

Enrolment restrictions

- Students in major 2 may not take Ecosystem-based Adaptation to Global Change (6 ECTS).
- Students in major 3 may not take Nature-based Solutions (3 ECTS), because its first-semester content forms part of Ecosystem-based Adaptation to Global Change (a compulsory course in major 3).

Toolbox Professional Skills

- Science Communication is being discontinued.

Toolbox Supporting Skills

- Evolution of Climate & Life: Oceans (Ghent University, 6 ECTS) is being added.
- World of Water Webinar (University of Antwerp, 3 ECTS) is being added.

Transitional measure

Toolbox Supporting Skills

From 2026–2027, Evolution of Climate & Life: Oceans and World of Water Webinar will be offered to both first- and second-year master's students.

Major 2

Nature-based Solutions becomes a compulsory component of major 2 from 2026-2027.

- Students who have not yet completed major 2 and have not yet taken an elective within major 2 must take Nature-based Solutions.
- Students are exempt if they have already completed major 2 or have already taken an elective within major 2.
- Students who have already taken Ecosystem-based Adaptation to Global Change as an elective must choose another elective within major 2.

Major 3

- Students who have not yet passed Integrated Practicals must take Integrated Water Management: Case River.
- Students who have already passed Integrated Practicals retain their acquired credits and do not take Integrated Water Management: Case River.

Major 4 will no longer be offered from 2026-2027.

- No classes will be organised in 2026-2027 or 2027-2028, and the courses may no longer be taken.
- Exception: students who took but did not pass a course from major 4 in 2025-2026 may take the examination only in 2026-2027 and 2027-2028.

Master Molecular Biology 05

What is changing?

Profile Biotechnology for Global Health

- Laboratory Animal Sciences 1 (3 ECTS) and Laboratory Animal Sciences 2 (3 ECTS) are being added to the list of electives.

Profile Agro- and Plant Biotechnology (KU Leuven course)

- Crop Production (6 ECTS, second semester) is being replaced by Crop Production Systems (4 ECTS, first semester).

Transitional measure

The elective package changes with immediate effect. Credits already obtained remain valid.

Master Physics and Astronomy 06

What is changing?

- **Discontinued electives**
  - Capita Selecta in Particle Physics (A) and (B)
  - Evolution of Stars and Stellar Systems
- **New electives**
  - Quantum Field Theory 2 (Ghent University, 6 ECTS, second semester)
  - Stellar Structure and Evolution (Ghent University, 6 ECTS)

Transitional measure

The elective package changes with immediate effect. Credits already obtained remain valid.

Master of Applied Informatics: Artificial Intelligence and Data Science – Big Data specialisation 07

What is changing?

- Compulsory package: Multicore Programming (6 ECTS) is being discontinued and replaced by Programming Distributed and Replicated Systems (6 ECTS, course coordinator: Elisa Gonzalez Boix, semester 2).

Transitional measure

Students who have already taken and successfully completed Multicore Programming are exempt from Programming Distributed and Replicated Systems.

Master Urban Studies 08

What is changing?

- Greening the City is being renamed Nature and the City.
- Master's Thesis (30 ECTS) is split into Master's Thesis – Partim 1 (15 ECTS) and Master's Thesis – Partim 2 (15 ECTS).

Transitional measure

Not applicable.