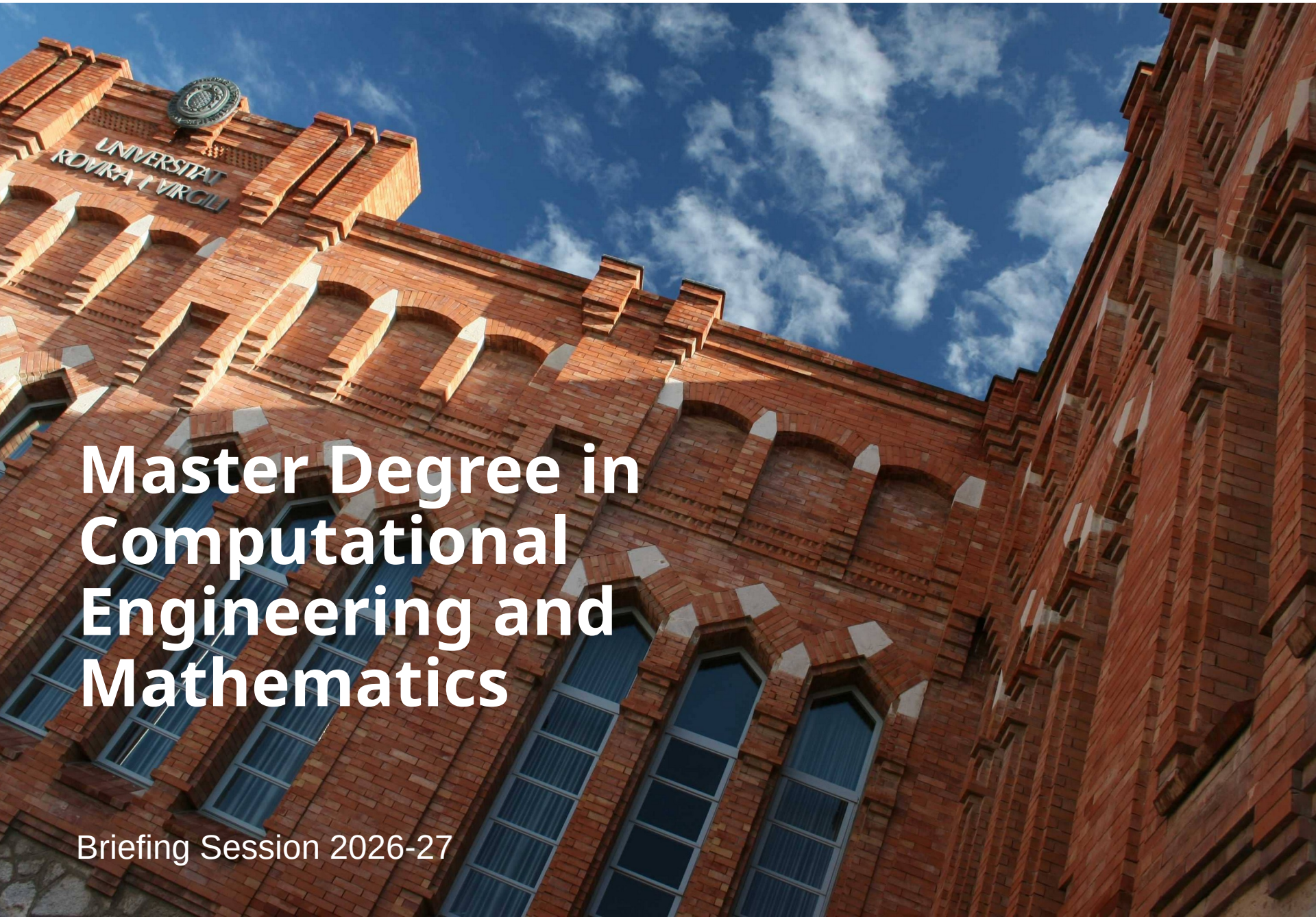
UNIVERSITAT ROVIRA i VIRGILI



Master Degree in Computational Engineering and Mathematics

Briefing Session 2026-27

The university (URV)

The URV in figures 2024-25

16,590 STUDENTS ENROLLED IN BACHELOR'S, MASTER'S, AND DOCTORAL DEGREES

1,262 TEACHING AND RESEARCH STAFF

1,900 WOS/SCOPUS PUBLICATIONS

37% INTERNATIONAL MASTER'S AND PHD STUDENTS

586 PERMANENT TEACHING AND RESEARCH STAFF

60% PUBLICATIONS IN FIRST-QUARTILLE JOURNALS

4,919 LIFELONG LEARNING STUDENTS

771 ADMINISTRATION AND SERVICES STAFF

145.8 BUDGET (M€)

International visibility

SHANGHAI RANKING — 2025 — 601-700

THE World University Rankings Young — 2024 — 112

Times Higher Education Impact Rankings — 2025 — 201-300

- 5 GENDER EQUALITY — TOP 50
- 7 AFFORDABLE AND CLEAN ENERGY — TOP 80

THE World University Rankings — 2026 — 601-800

QS WORLD UNIVERSITY RANKINGS — 2026 — 771-780

Master in Computational Engineering and Mathematics

Academic Coordinator

Dolors Puigjaner

- PhD in Mathematics from the Universitat de Barcelona (UB)
- Professor in the Department of Computer Engineering and Mathematics at the URV.
- My research interests focus on modeling and simulating the mechanical behavior of human organs with the goal of providing relevant information to the medical community.

Why to chose this master?

Combines **mathematics** and **computation** to solve complex real-world problems.

Provides **interdisciplinary** training that prepares you for **R&D&I positions** in companies or research centres.

Addresses many **current topics**, such as modelling and simulation, high performance computing, artificial intelligence and big data.

Qualifies you to access PhD programmes and continue your academic career path.

Master program overview

Format	University master's degree (**official**)
Language	**ENGLISH** (students can also use Spanish and Catalan)
Start date	First Semester: September 21 - Second Semester: February 8
Credits	**60 ECTS**
Structure	Five compulsory subjects (4 x 6 + 1 x 3 = 27 credits) Four elective subjects (4 x 6 = 24 credits) Master's (9 credits)
Links	https://www.urv.cat/en/studies/master/courses/computational-engineering/

Master program

5 COMPULSORY SUBJECTS

(27 ECTS)

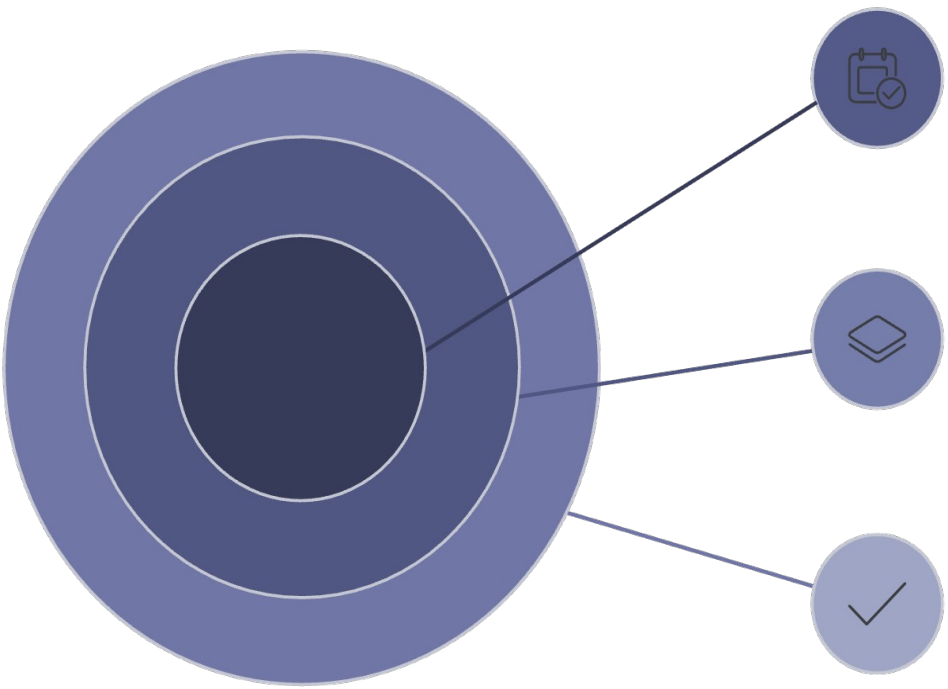
4 ELECTIVE SUBJECTS

(24 ECTS)

MASTER'S THESIS PROJECT

(9 ECTS)

Master program



Compulsary Subjects (27 ECTS)

Simulation, Numerical Methods, High Performance Computation, Artificial Intelligence, Introduction to Research (3)

Elective Subjects (24 ECTS)

Specialisation track:
4 elective courses out of 8 available.

Final Master's Thesis Project

9 ECTS Final Project

Master program

Compulsory subjects

- Simulation
- Numerical Methods in Engineering
- High-Performance Computing
- Artificial Intelligence
- Introduction to Research (3)
- Final Master's Degree Project (9)

Elective subjects

- Modelling through Differential Equations
- Data Analysis in Big Data Environments
- Graph Theory and its Applications
- Template Matching
- Complex Networks
- Chaotic Dynamical Systems
- Multivariate Data Analysis
- Cryptology and Blockchain Technology
- Discrete optimization

Master program

Subjects are only offered in one specific semester

1st Semester Subjects	2nd Semester Subjects
▸ Numerical Methods in Engineering ▸ Simulation ▸ Introduction to Research (3 ECTS) ▸ Modelling through Differential Equations ▸ Data Analysis in Big Data Environments ▸ Graph Theory and its Applications ▸ Discrete optimization	▸ High-Performance Computing ▸ Artificial Intelligence ▸ Multivariate Data Analysis ▸ Cryptology and Blockchain Technology ▸ Template Matching ▸ Chaotic Dynamical Systems ▸ Complex Networks
Master's thesis project (9 ECTS)	

Teaching Methodology

The master's degree is fully **online**.

It follows an **asynchronous learning model**, allowing flexibility for students.

All learning activities are delivered through the **URV Virtual Campus**, based on **Moodle**.

The academic year is divided into **two semesters:**

- **First semester:** September to January
- **Second semester:** February to July

The **language of instruction is English**. However, **Catalan** and **Spanish** may also be used in communications.

Deadlines for pre-registration

Phase	**Pre-registration dates**	Candidate admission/ exclusion phase (to be confirmed)	Confirmation of place and payment of reservation	Registration period
1st and 2nd united phases	2 March to 14 May	15 to 29 May	Up to 10 days after publication of admission (15 June at the latest)	8 to 17 July
3rd (*)	15 May to 7 July	8 to 22 July	No reservation	24 to 28 July
4th (*)	8 July to 9 September	(Early admissions and final admissions on September 24)	No reservation	25 to 28 September
Candidates who are not new access	---	---	---	8 to 24 July and 7 to 18 September Resuming a master's studies: 9 to 18 September

(*) If there are vacancies, applicants accepted in previous phases will be given priority (waiting list).

Deadlines for registration

- Students admitted in the first and second united phases who make an advance payment to reserve their place: **8-17 July.**
- Students admitted in the first and second united phases who do not make an advance payment to reserve their place: **after the period 8-17 July** as long as there are free places and they have been authorized to do so by the coordinator of the program.
- Students admitted who have made an advance payment to reserve their place but who have not been issued with their degree certificate until September: **7-28 September.**
- Students admitted who have made the advance payment to reserve their place, but who still have a maximum of 9 credits and their bachelor's thesis pending, lose their reservation. If they wish to register, they can do so as long as there are places available.

🎓 Enrolment Information

How many credits do I need to enroll in?

- Total ECTS for the master's degree = **60 ECTS**
- Minimum enrollment per academic year = 12 ECTS

Who Can Help You?

- After pre-registration, the Academic Management Office on campus can assist you with:
  - ✓ Documentation format and requirements for admission
  - ✓ Enrollment procedures

masters.scs@urv.cat

Tuition Fees

- **Public university, public fees**
- **Tuition fee =** Number of enrolled ECTS credits cost + administrative fees

💶 ECTS Credit Cost (2025–26 academic year)

- **EU students** (including **Iceland, Norway, Liechtenstein, Switzerland, Andorra** and **Spanish residents**):
  - €19.37 per ECTS
  - Full-year enrolment (60 ECTS): €19.37 × 60 + €145 = €1,307.2
  - With a Non-EU degree: + €218.15
- **Other international students:**
  - €46.11€ per ECTS
  - Full-year enrolment (60 ECTS): €46.11 × 60 + €145 = €2,913
  - With a Non-EU degree: + €218.15

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