



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

AREA
FORMAZIONE E DOTTORATO

PHD PROGRAMME TABLE

Call for applications for the admission to the PhD programmes (42nd cycle) - A.Y. 2026/2027
Second round

Section "Available Positions and Scholarships" integrated on 29/05/2026

PROGRAMME'S NAME	SCIENCE AND TECHNOLOGY FOR AEROSPACE AND MARINE ENGINEERING
DURATION	3 years
PROGRAMME START DATE	01/11/2026 (DD/MM/YYYY)
LANGUAGES	Italian, English
COORDINATOR	Prof. Dario Modenini (dario.modenini@unibo.it)
PhD POSITIONS	6
ADMISSION PROCEDURE	Qualifications and research proposal evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to research topics
1	Scholarship	Funded by the Department of Industrial Engineering with funds made available by the project Horizon Europe ERC-2024-COG - "STARGATE - STochastic Algorithm for Robust Guidance Analysis and Trajectory Estimation" - GA n. 101169959 - CUP J53C25002660006. Scientific coordinator: Prof. Marco Sagliano	Development of Unified Unscented Transform and Pseudospectral Integration Methods for Stochastic Optimal Control
2	Scholarship	Funded by the Department of Industrial Engineering with funds made available by the project Horizon Europe ERC-2024-COG - "STARGATE - STochastic Algorithm for Robust Guidance Analysis and Trajectory Estimation" - GA n. 101169959 - CUP J53C25002660006. Scientific coordinator: Prof. Marco Sagliano	Sequential Consensus Optimization for Deterministic and Stochastic Trajectory Optimization
3	Scholarship	Funded by the Department of Industrial Engineering with funds made available by the project Horizon Europe ERC-2024-COG - "STARGATE - STochastic Algorithm for Robust Guidance Analysis and Trajectory Estimation" - GA n. 101169959 - CUP J53C25002660006. Scientific coordinator: Prof. Marco Sagliano	Acceleration of Numerical Optimization through Parallelization and Advanced Theoretical Methods
4	Scholarship	Funded by the University of Bologna general budget and by the Department of Industrial Engineering	Extended Reality for Human-AI Interaction: Towards Intelligent, Adaptive and Immersive Interfaces in Mobility and Transport Industry

5	Scholarship	Funded by the University of Bologna general budget and by the Department of Industrial Engineering. PhD scholarship in memory of Prof. Francesco Masi, formerly Professor Emeritus of Applied Mechanics for Machinery at the University of Bologna	Radio occultations techniques for planetary exploration mission
6	Scholarship	Funded by the University of Bologna general budget and by the Department of Industrial Engineering with funds made available by the project Horizon Europe ERC-2024-COG - "STARGATE - STochastic Algorithm for Robust Guidance Analysis and Trajectory Estimation" - GA n. 101169959 - CUP J53C25002660006. Scientific coordinator: Prof. Marco Sagliano	Advanced navigation techniques for space missions

The yearly gross amount of the scholarships awarded for the PhD Programme in “Science and Technology for Aerospace and Marine Engineering” is €19,700.76

All winners of PhD positions must fulfil the study and research obligations decided by the Academic Board, as well as the obligations set out in the relevant regulations, in the call for applications, in the funding schemes and in any agreements relating to specific positions.

Admission Exams

	DATE AND TIME	RESULTS
Qualifications and research proposal evaluation	Applicants’ participation is not required	Available from 01/07/2026
Oral examination	Date: starting from 08/07/2026 – 10.00 CEST Place: In presence, Department of Industrial Engineering, Via Montaspro 97, Forlì. Remotely, using Microsoft Teams	Available from 13/07/2026

The results of the qualifications and research proposal evaluation, as well as the oral examination detailed schedule, shall be available on the webpage [Studenti Online](#) (select “requests in progress” > “see detail” and open the .pdf file at the bottom of the page). No personal written communication will be sent to applicants concerning the examinations results.

During the oral examination, applicants will express their interest in one or more PhD positions linked to specific research topics.

Required and Supporting Documents to be attached to the application

Only documents in Italian or English will be considered valid and will be assessed by the Admission Board. Identity documents and diplomas/degree certificates issued in a language other than Italian or English must be accompanied by an official translation. The translation must be carried out by an authorized body or by the awarding university. Only qualifications obtained in the last 5 years will be taken into account, with the exception of university degrees. The Admission Board will assess the relevance of the supporting documents to the PhD programme.

REQUIRED DOCUMENTS	
Identity document	Valid identity document with photo (i.e. identity card, passport)
Curriculum Vitae	No specific CV format is required
Degrees	Documents attesting the awarding of the first and second cycle degrees, the exams taken and the marks obtained (see Art. 3 of the Call for Applications)
Research proposal	Multi-annual research proposal, with special emphasis on the activities to be completed during the first-year course. The proposal must meet the following requirements: - it must mention on the cover page the main research topic/s the applicant is interested to and the proposal is about;

	- it cannot exceed 20,000 characters, including spaces and formula possibly used. This figure does not include: the title of proposal, the outline, references and images (such as graphs, diagrams, tables, etc. - if present); - it must include: the state of the art; description of the proposal; expected results; references. The research proposal that successful applicants shall carry out during their PhD career may possibly differ from the one proposed at the application stage. This shall be defined together with the supervisor and approved by the Academic Board. In accordance with the University's policy on the ethical and responsible use of Generative Artificial Intelligence in teaching and research activities, candidates must explicitly state whether they have used Generative Artificial Intelligence systems in the production of the research proposal attached to their application form, specifying which tools were used and for which parts of the document. During the oral examination, the Admission Board will assess the candidate's full mastery of the content included in the document and their ability to justify the methodological and scientific choices made in the project.
SUPPORTING DOCUMENTS	
Thesis abstract	Abstract of the second cycle degree thesis . Graduands applicants may submit an abstract of the thesis to be defended. Abstracts cannot exceed 5,000 characters, including spaces and formula possibly used. The above figure does not include: the title of the thesis, the outline, references, and images such as graphs, diagrams, tables etc.
Reference letter/s	No more than 2 reference letters signed by Italian and international academics and professionals in the research field, which do not form part of the Admission Board, attesting the suitability of the applicant and his/her interest in the scientific research. Letters shall be uploaded following the procedure detailed in the Call for Applications (Art. 3.2).
Personal Statement	The statement shall include the reasons prompting the applicant to attend the PhD Programme and those relevant experiences and research interests , that make the applicant suitable for the specific PhD Programme (3,000 characters maximum, including spaces).
Publications	Lists of publications (i.e. monographs, articles on scientific journals)
Other documents	- Research activity of any kind - whether basic, applied, translational, etc. - carried out in any capacity, including when covered by research grants, and as a staff member of research projects - Study periods completed by applicants outside their countries of origin (e.g. Erasmus programme or other similar mobility programmes) - Other qualifications attesting the suitability of the applicants (scholarships, prizes, etc.)

Evaluation criteria*

Scores will be expressed in points out of 100, as follows.

1. Qualifications and research proposal evaluation

Minimum score for admission to the oral examination: 30 points, Maximum score: 50 points

Qualifications evaluation	Second cycle degree (Master's) final mark. Graduands (or international applicants who have been awarded their degree in a University system that does not provide a final mark) shall be evaluated according to the Weighted Average Mark (WAM)	20 points max
	Publications and other evaluable documents	5 points max
Research proposal evaluation	Scientific value and ground-breaking nature of the proposal	15 points max
	Structure of the proposal	5 points max
	Proposal feasibility	5 points max

2. Oral examination

Minimum score for eligibility: 30 points, Maximum score 50 points

Research proposal presentation	30 points max
General knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions	20 points max

The applicant is preliminarily asked to declare any intention to compete for one or more topic-related positions (see the table “Available Positions and Scholarships” in the present document, updated to the date of the interview). The oral examination includes a discussion of the research topics for which the candidate is applying and any in-depth questions relating to the candidate's knowledge and mastery of the main research topics of the PhD programme.

The oral examination is carried out in English.

* Possible further evaluation criteria will be available on the [University website](#), selecting the relevant PhD Programme > “More information”.