



PROFESSIONAL MASTER'S PROGRAMME DATA SHEET

Title	SPICES - Space missions science, design and applications
Disciplinary area	Sciences and technologies
Level	Second level professional master's program
Director	Prof. Andrea Cimatti
Closing date for applications (to register for selection)	November 14th 2024
Selection method	<p>Based on candidates' qualifications and motivational interview</p> <p>The maximum score given by the Admission Board is 100 points, of which the breakdown is as follows: 40 points allocated for the assessment of the candidates' qualifications and the remaining 60 points allocated for the assessment of motivational interview.</p> <p>During the interview, knowledge of the English language will be ascertained by requesting the reading of a passage and its translation. In addition, the candidate will be asked on questions about the proposed English text.</p> <p>The minimum score of 60/100 must be achieved to pass the selection.</p> <p>In the event of a tie, preference will be given to the candidate with the highest score in the motivational interview. In the event of further tie, preference will be given to the youngest candidate.</p>
Selection date	November 21st 2024
Ranking list publication date	November 28th 2024 The ranking lists may be viewed on Studenti Online using your username and password
Enrolment period	From November 28th 2024 to December 11th 2024
Available places	min 8 – max 30
Fees	<p>Admission fee: 60,00 euros (non-reimbursable administrative fee)</p> <p>Total fee € 4.400,00 (fourthousandfourhundred/00 euros): first instalment € 2.200,00 (twothousandtwohundred/00 euros) (to be paid by the deadline set for enrolment December 11th 2024); second instalment € 2.200,00 (twothousandtwohundred/00 euros) (to be paid by 31/03/2025)</p> <p>The Direction Board of the professional master's program, in the presence of external funding (fundraising activities), may decide to</p>



	<p>provide reductions in tuition fees, assigned according to the order of the selection ranking.</p> <p>For updated details on available scholarships, please refer to the "ADMISSION" section on the professional master's program website: https://master.unibo.it/spices/en/admission</p>
<p>Places in excess of the maximum number reserved for students with a certified legal disability of 66% or more or with a certification under Law 104/92 (optional, at the director's discretion)</p>	<p>No. 1 places for students in excess of the maximum number are provided, subject to passing the selection. Such students will be exempted from paying tuition fees, net of any fixed costs and of the selection procedure participation fee.</p> <p>For more information, please see Art. 1 of the Call for Applications.</p>
<p>Places reserved for professional staff and foreign language instructors of the University of Bologna (part-time Professional Master's Programmes only)</p>	<p>On part-time Professional Master's Programmes only, two places in excess of the maximum number are reserved for professional staff and foreign language instructors of the University of Bologna. Such students will be exempted from paying tuition fees, net of any fixed costs. Preferably before registering for selection, please complete the form available on the intranet page Measures for participation of professional staff and foreign language instructors in postgraduate programmes recognised by the University of Bologna. APOS will inform the applicants directly of the outcome of their request.</p> <p>For further information, please contact apos.master-ta@unibo.it</p>
<p>Administrative office</p>	<p>Bologna</p>
<p>Place of teaching</p>	<p>Bologna</p>
<p>Language</p>	<p>English</p>
<p>Duration</p>	<p>1 year</p>
<p>University educational credits (CFUs)</p>	<p>60</p>
<p>Mandatory attendance</p>	<p>75%</p>
<p>Teaching mode</p>	<p>Mixed-mode teaching - More details are available to the professional master's programme website: https://master.unibo.it/spices/en/programme</p>
<p>Internship or project work and final examination</p>	<p>600 hours of internship/project work, equivalent to 24 CFU, in collaboration with research institutes, space agencies, and private companies active in the space sector.</p>



<p>Professional Master’s Programme description:</p> <p>outcomes/targets</p>	<p>Pursuant to Decree no. 270 of 22 October 2004 of the Ministry of Education, University and Research, for academic year 2024/2025, Alma Mater Studiorum – Università di Bologna, Administrative office of Bologna, will run a 2nd level Professional Master’s Programme in “Space missions science, design and applications”.</p> <p>The Professional Master’s Programme has been set up on the proposal of the Department of Physics and Astronomy (DIFA) and in cooperation with Fondazione Alma Mater.</p> <p>The Professional Master’s Programme aims to train qualified candidates and teach them the competencies necessary to be able to enter the job market in a competitive way, both nationally and internationally, through an innovative programme of advanced training to acquire multidisciplinary skills in the field of space missions and the analysis of satellite data in the scientific and application fields.</p>
<p>Qualifications required for admission</p>	<p>The programme is reserved for candidates who, by the time of enrolment December 11th 2024, are in possession of the following qualifications and access requirements:</p> <ul style="list-style-type: none">- Single cycle degree obtained under D.M. 270/04 or second cycle degree obtained under the laws previously in force (DM 509/99 and Old Regulations) in the following fields or classes: Biology LM-6, Physics LM-17, Computer Science LM-18, Aerospace and Aeronautical Engineering LM-20, Biomedical Engineering LM-21, Civil Engineering LM-23, Telecommunication Engineering LM-27, Electronic Engineering LM-29, Management Engineering LM-31, Computer engineering LM-32, Mechanical engineering LM-33, Environmental and land engineering LM-35, Mathematics LM-40, Mathematical-physical modeling for engineering LM-44, Materials science and engineering LM-53, Chemical Sciences LM-54, Universe Sciences LM-58, Nature Sciences LM-60, Agricultural Sciences and Technologies LM-69, Industrial Chemistry LM-71, Forestry and Environmental Sciences and Technologies LM-73, Sciences and geological technologies LM-74, Sciences and technologies for the environment and the territory LM-75, Geophysical Sciences LM-79, Geographical Sciences LM-80, Statistical Sciences LM-82;- Single cycle degree obtained abroad deemed equivalent to those described in point above by the admission committee, for the purposes of admission to the Master;- Other single cycle master's degrees may be considered according to the candidate's specific curriculum and skills.



Other admission requirements (registration with a professional register, specialisation school, other qualifications, English proficiency, work experience, etc.)	Sound knowledge of English language
Course structure diagram	<p>Cosmology and fundamental astrophysics – FIS/05 – 2 CFU – Lauro Moscardini</p> <p>High-energy astrophysics and astroparticle physics – FIS 05 – 2 CFU – Maurizio Spurio</p> <p>Planetology and astrobiology – FIS/05 – 2 CFU – Barbara Cavalazzi</p> <p>Fundamental physics of the solid earth – GEO/10 – 2 CFU – Alberto Armigliato</p> <p>Fundamental physics of the fluid earth – FIS/06 – 1 CFU – Federico Porcù</p> <p>Space missions – i & ii – ING-IND/05 – 6 CFU – Paolo Tortora</p> <p>Space telescopes and radiation detectors – FIS/05 – 1 CFU – Beatrice Fraboni</p> <p>Space data transmission – ING/INF/03 – 1 CFU – Marco Chiani</p> <p>Human flight and space medicine – BIO/09 – 1 CFU – Matteo Cerri</p> <p>Management of space missions – FIS/05 – 1 CFU – Luca Valenziano</p> <p>Analysis of astrophysical data – FIS/05 – 2 CFU - Cristian Vignali</p> <p>Detectors for astroparticles and data analysis – FIS/01 – 1 CFU – Alberto Oliva</p> <p>Earth observation techniques and data analysis – ICAR/06 – 4 CFU – Gabriele Bitelli</p> <p>Applications of geospatial information – SECA-S/01 – 2 CFU – Elisabetta Carfagna</p> <p>Satellite monitoring of the climate and ocean systems – FIS/06 – 2 CFU – Tiziano Maestri</p> <p>Image processing and data analysis – ING-INF/05 – 4 CFU – Alessandro Bevilacqua</p> <p>Seminars with companies and research institution - 2 CFU</p>



Class start date and teaching calendar information	<p>Classes start on Friday, January 10th, 2025. Classes will be held on Fridays (full day) and Saturdays (half day). Additionally, there will be one Thursday per month with classes for the entire day.</p> <p>Link to the website: https://master.unibo.it/spices/en</p>
Auditors (if applicable)	<p>Participation is open to auditors, up to 20% of enrolled students.</p> <p>Those who wish to attend as auditors must inform directly the Professional Master's Programme secretariat and will be notified of the acceptance of their request, as well as of the deadline and methods for registration and payment of the attendance fee. The attendance fee for auditors is € 2.200 (two thousand two hundred/00 euros) (to be paid in a single instalment upon registration). Auditors do not sit the final exam, have no attendance obligation, are not required to do an internship or prepare project work, do not earn CFUs and are not awarded the Professional Master's qualification in "Space missions science, design and applications". The Secretariat will issue a certificate of attendance stating the number of hours completed by each auditor.</p>
Other information	<p>The documents required for the selection process are listed in the operating instructions and must be submitted together with the documents listed below:</p> <ul style="list-style-type: none">a) Curriculum Vitae;b) Titles Sheet (available at the bottom of the Course webpage in the Unibo Professional Master's Programmes portal);c) Proficiency certificate attesting the level of knowledge of the English language or, in the vacancy of official proficiency, self-certification of the level achieved is required.
For administrative information	<p>Please contact the Ufficio Master at master@unibo.it</p>
For scientific and teaching information	<p>For scientific and teaching information (teaching programme, classes timetable, exams, internships or project works etc.) contact the place of teaching at (Fondazione Alma Mater – Bruno Cortesi – b.cortesi@fondazionealmamater.it - 0512080621).</p>