



## PROFESSIONAL MASTER'S PROGRAMME DATA SHEET

<b>Title</b>	Cybersecurity: from design to operations
<b>Disciplinary area</b>	Science and Technology
<b>Level</b>	First level
<b>Director</b>	Marco Prandini
<b>Closing date for applications (to register for selection)</b>	3 October 2024
<b>Selection method</b>	<p>Selection based on qualifications and interview</p> <p>Maximum score 100 points, of which 40 points assigned according to the evaluation of qualifications and the remaining 60 points assigned based on the evaluation of the motivational interview. Minimum score 65</p> <p>In the event of an ex-aequo, the person who obtained the highest score in the motivational interview test precedes; in the event of a further tie, the candidate who is younger in age precedes.</p>
<b>Selection date</b>	10 October 2024
<b>Ranking list publication date</b>	<p>21 October 2024</p> <p>The ranking lists may be viewed on <a href="#">Studenti Online</a> using your username and password</p>
<b>Enrolment period</b>	From 21 October 2024 to 31 October 2024
<b>Available places</b>	Minimum 12 - Maximum 18
<b>Fees</b>	<p>Selection procedure participation fee: € 60,00 (non-refundable fee for administrative services, Art. 1 of the Call for Applications)</p> <p>Total fee €5,200.00 (five thousand two hundred): first installment € 2,600.00 (two thousand six hundred) (to be paid strictly by 31/10/2024); second installment €2,600.00 (two thousand six hundred) (to be paid by 30/01/2025)</p>
<b>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)</b>	<p>No. 2 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>
<b>Places reserved for professional staff and foreign language instructors of the University of Bologna (part-time)</b>	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



<b>Professional Master's Programmes only)</b>	<p>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 <a href="#">Measures for participation of professional staff and foreign language instructors in postgraduate programmes recognised by the University of Bologna</a>. APOS will inform the applicants directly of the outcome of their request.</p> <p>For further information, please contact <a href="mailto:apos.master-ta@unibo.it">apos.master-ta@unibo.it</a></p>
<b>Administrative office</b>	Bologna
<b>Place of teaching</b>	Bologna
<b>Language</b>	English
<b>Duration</b>	1 year
<b>University educational credits (CFUs)</b>	60
<b>Mandatory attendance</b>	80%
<b>Teaching mode</b>	Blended (simultaneously in person and remote)
<b>Internship or project work and final examination</b>	<p>The internship or project work takes up 500 hours and awards 20 CFU. In cooperation with the Master's Director and partner companies, the students will identify a practical project in which to apply the notions learned in class (for example: analysis of the company security posture, mitigation from attacks, software development with security by design methodologies, etc.), to be reported in writing and presented at the final exam.</p>
<b>Professional Master's Programme description:</b>  <b>outcomes/targets</b>	<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 1st-level Professional Master's Programme in "Cybersecurity: from design to operations".</p> <p>The Professional Master's Programme has been set up on the proposal of the Department of Computer Science and Engineering and in cooperation with Fondazione Alma Mater.</p> <p>The Professional Master's Programme aims to train, within a business context, experts in IT security of hardware-software infrastructures for the management of critical systems and data processing. In particular, the Master's provides skills in the analysis of existing criticalities, as well as expertise in the design, planning, integration and deployment of security solutions on both an application and network level, in all infrastructure and process operating phases.</p>



<p><b>Qualifications required for admission</b></p>	<p>L-8 Information Engineering and L-31 Information Technology and Science, or a Bachelor's degree in an equivalent discipline, where relevant in accordance with previously applicable regulations (Ministerial Decree 509/99 and old university regulations).</p> <p>Two-year Master's degree and combined Bachelor's and Master's degree (single cycle) in accordance with Ministerial Decree 270/04 in the following classes: LM-18 Information Technology, LM-25 Automation Engineering, LM-26 Security Engineering, LM-27 Telecommunications Engineering, LM-28 Electrical Engineering, LM-29 Electronic Engineering, LM-32 Information Technology Engineering and LM-66 Information Security, or a Master's degree or combined Bachelor's and Master's degree (single cycle) in an equivalent discipline, where relevant in accordance with previously applicable regulations (Ministerial Decree 509/99 and old university regulations).</p> <p>degrees in different classes could be accepted pending evaluation of the personal skills of the candidate.</p>
<p><b>Other admission requirements (registration with a professional register, specialisation school, other qualifications, English proficiency, work experience, etc.)</b></p>	<p>Basic knowledge in operating systems, computer networks, and programming languages C and Java is requested, which is implicitly assumed where candidates have passed the corresponding exams. In the absence of this, the candidate's skills will be assessed during the interview.</p>
<p><b>Course structure diagram</b></p>	<p>Fundamentals of Security and Cryptography – SSD: ING-INF/05 – Professor in charge: Rebecca Montanari</p> <p>Network security and administration – SSD: ING-INF/03 – Professor in charge: Walter Cerroni</p> <p>Computer security and administration - SSD: ING-INF/05 – Professor in charge: Marco Prandini</p> <p>Security engineering I - Secure Coding - SSD: ING-INF/05 – Professor in charge : Valentina Ricci (complemented by workshop “Static application security testing - SSD: ING-INF/05 – Professor in charge: Andrea Pagani)</p> <p>Security engineering II - Web app security and testing - SSD: ING-INF/05 – Professor in charge: Giuseppe Porcu</p> <p>Security engineering III - Mobile security and testing - SSD: ING-INF/05 – Professor in charge: Alfonso Solimeo</p> <p>Security engineering IV - Industrial Control Systems - SSD: INF/01 – Professor in charge: Andrea Melis</p> <p>Security monitoring I - Malware analysis and detection - SSD: ING-</p>



	<p>INF/05 – Luigi Martire</p> <p>Security monitoring II - information correlation - SSD: INF/01 – Professor in charge: Federico Foschini</p> <p>Incident response - SSD: ING-INF/05 – Professor in charge: Luca Losio</p> <p>Cyber Forensics - SSD: INF/01 – Professor in charge: Alessandro Amoroso</p>
<b>Class start date and teaching calendar information</b>	<p>Friday 8 November 2024</p> <p>The course takes 26 weekends spanning 8 months, with Winter/Spring/National holidays breaks; each week, 12 hours of lectures are planned: on Friday, 2pm to 6pm, and Saturday, 9am to 1pm + 2pm to 6pm.</p> <p><a href="https://master.unibo.it/cybersecurity/en/">https://master.unibo.it/cybersecurity/en/</a></p>
<b>Auditors (if applicable)</b>	<p>Participation is open to auditors, up to 20% of enrolled students, in accordance with Art. 8 of the Call for Applications.</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 € 2.600,00 (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 Cybersecurity: from design to operations. The Secretariat will issue a certificate of attendance stating the number of hours completed by each auditor.</p>
<b>For administrative information</b>	<p>Please contact the Ufficio Master at <a href="mailto:master@unibo.it">master@unibo.it</a></p>
<b>For scientific and teaching information</b>	<p>Fondazione Alma Mater, Isadora Merli</p> <p><a href="mailto:i.merli@fondazionealmamater.it">i.merli@fondazionealmamater.it</a></p> <p>+390512080527</p>