



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA


AREA
FORMAZIONE E DOTTORATO

PHD PROGRAMME TABLE 40TH CYCLE

PROGRAMME'S NAME	PSYCHOLOGY
DURATION	3 years
PROGRAMME START DATE	01/11/2024 (DD/MM/YYYY)
LANGUAGES	English
COORDINATOR	Prof. Elisabetta Crocetti (elisabetta.crocetti@unibo.it)
PhD POSITIONS	12
ADMISSION PROCEDURE	Qualifications and research proposal evaluation Oral examination

Available Positions and Scholarships

Pos. n.	Financial Support	Description	Positions linked to research topics
1	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
2	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget	
3	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget under the "Departments of Excellence" initiative	
4	<i>PhD scholarship</i>	Totally funded by the University of Bologna general budget under the "Departments of Excellence" initiative	
5	<i>PhD scholarship</i>	Funded by the University of Bologna general budget and by the Department of Psychology with funds made available by the project PRIN 2022 MUR code 2022NEE53Z CUP: J53D23008180006 R.S. Prof. Alessio Avenanti	Driving associative plasticity to enhance emotion perception
6	<i>PhD scholarship</i>	Funded by the University of Bologna general budget and by the Department of Psychology with funds made available by the project PRIN 2022 MUR Prot.2022BXT34T CUP J53D23011310006 Ref. Prof. Monica Rubini	Gender differences in personnel selection and actions to change the status quo
7	<i>PhD scholarship</i>	Funded by the University of Bologna general budget and by the Department of Psychology with funds made available by the project PRIN 2022 Code: 2022XKZBFC CUP J53D23008340001 Ref: Prof. Sara Borgomaneri	The influence of emotions on action control: brain network plasticity and potential trans-diagnostic application

8	PhD scholarship	Funded by the University of Bologna general budget and by the Department of Psychology with funds made available by the project PRIN 2022 MUR Code: 2022LF9LAS CUP: J53D23011520006 Ref. Prof. Francesca Prati	Developing inclusive societies: Predictors and implications of interethnic contact
9	PhD scholarship	Totally funded by MUR under the “Departments of Excellence” initiative	
10	PhD scholarship	Funded by the Department of Psychology under the “Departments of Excellence” initiative with funds made available by the project HE "Sestosenso" GA number 101070310 Ref. Prof. Luca Pietrantoni	Adaptive Human-Robot Collaboration in the Industry
11	PhD scholarship	Funded by the Department of Psychology with funds made available by the project FARE “IDENTITIES through pandemic - Managing identities during the COVID-19 outbreak: A longitudinal study on long-term implications for adolescents’ psychosocial development” Ref. Prof. Elisabetta Crocetti. Code: R20CMJ9NHP-CUP: J33C22003590001	Managing identities during the COVID-19 outbreak: a longitudinal study on long-term implications for adolescents’ psychosocial development
12	PhD scholarship	Funded by Regione Emilia-Romagna in the framework of the research training projects “Territorio: Transizione tecnologica, culturale, economica e sociale verso la sostenibilità” (PR. FSE + 2021/2027 – DGR n. 225 del 12/02/2024) - CUP J33C24000280006 	Psychological resources for coping with transitions

The number of positions and scholarships may be incremented in case additional funding becomes available, notwithstanding the terms of the application process in the Call. Any amendment, update or integration of the Programme Table will be published on the University website, even after the Call for applications has expired. Any further PhD positions shall be integrated in the PhD Programme Table within ten days before the oral examination.

All PhD positions winners shall fulfill the learning and research obligations decided by the Academic Board and the obligations foreseen in the relevant regulations, funding schemes and eventual agreements, and in the Call for Applications.

Admission Exams

	DATE AND TIME	RESULTS
Qualifications and research proposal evaluation	Applicants’ participation is not required	Available from 04/07/2024
Oral examination	Date: starting from 15/07/2024 – 9.30 a.m. CEST Place: In presence, Aula 1, Department of Psychology, Via Filippo Re 10, Bologna. Remotely, using Microsoft Teams: Applicants unable to be present in person for serious reasons can request to be interviewed via Teams by writing an email to the members of the Admission Board (subject line: "Request of online interview"). Applicants are required to specify exactly the reason why they cannot be in presence. The Board will evaluate the request and, if approved, will send the Teams link for the interview.	Available from 17/07/2024

The results of the qualifications and research proposal evaluation shall be available on the webpage [Studenti Online](#) (select “summary of the requests in progress” > “see detail” and open the .pdf file at the bottom of the page) together

with the oral examination detailed schedule. **No personal written communication will be sent to applicants concerning the examinations results.**

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

Required and Supporting Documents to be attached to the application

All the documents listed below **shall be drawn up in English or in Italian**. In case of documents originally issued in any other language (e.g. identity document, qualifications), an official translation is required.

Only qualifications obtained **during the last 5 calendar years** shall be taken into consideration, except for the University Degree. 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. The Curriculum Vitae must be written in English.
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, drawn up in English . The proposal must meet the following requirements: <ul style="list-style-type: none"> - it must mention on the cover page the eventual topic-specific PhD (cfr. table “Available Positions and Scholarships”, and detailed in the section Research Fields) the applicant is interested to and the proposal is about, and the number of words used to write the research proposal; - it must include: the state of the art; Aims; Hypothesis; Methodology / structure of the study(s) (sample, independent and dependent variables, analysis plan; Theoretical and practical implications); Temporal plan of activities - max. 3,000 words, references excluded
SUPPORTING DOCUMENTS	
Reference letter/s	No more than 2 reference letters signed by Italian or 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) and written in English .
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). The personal statement must be written in English.
Publications	Lists of publications (i.e. monographs, articles on scientific journals)

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	University degree final mark. Graduands shall be evaluated according to the Weighted Average Mark (WAM)	10 points max
	Reference letter/s	2 points max
	Personal statement	1 point max
	Publications	4 points max
Research proposal evaluation	Scientific value and ground-breaking nature of the proposal	13 points max
	Structure of the proposal	10 points max
	Proposal feasibility	10 points max

2. Oral examination

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

English language proficiency	10 points max
Research proposal presentation	35 points max
General knowledge of PhD programme's main research topics and of the research topics linked to the available PhD positions	5 points max

Oral examination aims to assess the suitability of the applicant for scientific research as well as the general knowledge of the PhD programme's main research topics and of the research topics linked to the available PhD positions.

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".

Research fields

Driving associative plasticity to enhance emotion perception (1 scholarship; Supervisor: Prof. Alessio Avenanti)

The selected candidate will conduct research within the scope of the project "Driving associative plasticity to enhance emotion perception", which is part of the PRIN 2022 project "Visual awareness without visual cortex: from monkey neurophysiology to human patients" (project number: 2022NEE53Z; CUP: J53D23008180006; PI: Alessio Avenanti). Funded by MUR, the PRIN project aims to understand and potentially restore visual awareness in individuals with damage to the primary visual cortex (V1). It seeks to move beyond studying neural correlates of visual awareness to identifying its neural causes. Through a multidisciplinary approach encompassing brain stimulation, electrophysiology, computational neuroimaging, and behavioral studies across humans and monkeys, the project aims to elucidate the brain mechanisms associated with visual awareness. The project seeks to translate insights from basic research into evidence-based clinical interventions for individuals with visual impairments due to V1 damage.

To achieve these goals, the selected candidate will conduct TMS-EEG experiments in healthy humans, focusing on the plasticity and causal role of temporo-occipital pathways in the perception of emotions in other individuals. The candidate will utilize TMS to modulate the strength of cortico-cortical connectivity, while EEG recordings and psychophysical assessments will be employed to evaluate the effects of such manipulation. This research aims to contribute to the development of innovative techniques aimed at enhancing visual perception.

Gender differences in personnel selection and actions to change the status quo (1 scholarship; Supervisor: Prof. Monica Rubini)

The research project includes a set of studies employing explicit and implicit measures aimed to detect the role of contemporary gender stereotypes in hindering equal possibilities for women to enter and progress in the work environment. An interrelated line of research is focused on actions at the individual and collective level to bring more equality between men and women in the work context.

The influence of emotions on action control: brain network plasticity and potential trans-diagnostic application (1 scholarship; Supervisor: Prof. Sara Borgomaneri)

Efficient inhibitory control during emotionally charged moments is crucial to adaptively behave in a changing environment. Despite its significance, research into the brain processes that empower humans to prevent undesired actions in emotional contexts has been somewhat overlooked. Of particular interest is the observation that inhibitory control tends to be less effective when dealing with emotional stimuli, although conflicting findings have been reported. The primary objective of this project is to illuminate how the human motor system enables individuals to inhibit prepotent responses in emotional contexts, revealing the significant influence of emotions on action control, even when emotional stimuli are not consciously perceived or task-relevant. Through a comprehensive series of behavioral, Transcranial Magnetic Stimulation (TMS), and electroencephalographic (EEG) studies, this project seeks to:

- Probe the role of unconscious emotional stimuli in shaping action control;
- Evaluate whether specific neurophysiological indices can anticipate one's ability to control actions in emotional settings;
- Investigate the involvement of the motor and premotor cortices in action control;
- Assess the possibility to ultimately increase motor inhibition abilities, providing behavioral advantages.

These findings hold the promise of enriching our comprehension of the intricate interplay between emotions and actions, thereby paving the way for further exploration of the brain mechanisms underpinning action inhibitions, particularly in pathological conditions.

Developing inclusive societies: Predictors and implications of interethnic contact (1 scholarship; Supervisor: Prof. Francesca Prati)

Changes in social diversity constitute a key factor shaping today's world. Global modernisation and continued forced migrations have dramatically changed most countries' demographic composition, enhancing proximity between

different ethnic groups. A long tradition of social psychology research assessed the optimal conditions of contact between groups to reduce outgroup prejudice. Yet, there is a critical lack of consensus on whether these conditions do not only reduce negative outcomes, such as prejudice and discrimination, but also promote positive outcomes, such as social integration, leading to the pursuit of a more inclusive and equal society. Thus, the predictors and implications of quantity and quality of both online and offline experiences between ethnic groups on social integration are still unknown. This project involves research considering majority (i.e., native) and minority (i.e., immigrant) groups as well as inter-minority contact, to assess the optimal conditions of interethnic contact to endorse social integration. The project aims to examine: a) the interaction among individual, social and contextual factors in predicting quantity and quality of intergroup contact between majority and minority group members; b) whether and how intergroup contact quantity and quality facilitate social integration over time; c) when and how intergroup contact valence and intensity are associated with distinct forms of social integration (i.e., social well-being, pro-sociality, solidarity); d) the role of content and structure of language during intergroup contact in fostering social integration. To achieve these aims, a series of qualitative (interviews) and quantitative (longitudinal, cross-sectional and experimental) studies will be implemented with majority and minority group members.

Adaptive Human-Robot Collaboration in the Industry (1 scholarship; Supervisor: Prof. Luca Pietrantoni)

The selected candidate will conduct research within the scope of the project SESTOSENSO. The project "SESTO SENSO" is aiming at developing technologies for the next generations of collaborative robots capable of self-adapting to different time-varying operational conditions and capable of safe and smooth adaptation from autonomous to interactive when human intervention is required either for collaboration or training. The project "SESTO SENSO" introduces innovative sensing technologies in different types of organizations, ranging from hardware to cognitive perception and control, through networks of integrated proximity and tactile sensors on the robot's body. This technology enables a cohesive proxy-tactile understanding of the surroundings, which is essential for safely and independently directing the robot's actions and interactions in the work environment. Additionally, the project extends these technologies to wearable devices, enhancing users' spatial awareness and ensuring safety during crucial human-robot interactions. This project receives funding from the European Commission's HORIZON EUROPE Research and Innovation Actions under GA number 101070310.

To fulfill these objectives, the research will focus on the synergies and interaction modes between workers and collaborative industrial robots, particularly on adaptive collaboration. Adaptive human-robot collaboration refers to the dynamic and flexible interaction between humans and robots in a shared workspace, where both parties actively adjust their behaviour and actions based on the changing needs, goals, and context of the collaborative task. In this type of collaboration, the robot is designed to perceive, understand, and respond to the human's actions, intentions, and preferences in real-time, while the human adapts to the robot's capabilities, limitations, and feedback.

One aspect of the research aims to develop a new method to refine human-robot interaction in an industrial setting. This approach utilizes attention recognition and adaptive control strategies to improve the efficiency and safety of human-robot collaborations significantly. By allowing operators to influence the robot's speed through behavioural and cognitive patterns, this method presents an innovative approach to human-robot synergy. The research will examine the cognitive effects of this interaction technique on human operators, assessing its impact on cognitive load and overall work experience.

Additionally, the research will assess organizational strategies to enable smooth and effective human-robot interaction. This will include a comprehensive analysis of best practices for organizational change strategies, focusing on creating a cultural and operational framework that supports dynamic collaboration between humans and robots. By examining successful case studies and innovative strategies in organizational design, leadership, training programs, and communication protocols, the research aims to identify critical factors that promote an agile, responsive workplace capable of integrating advanced robotic systems. This approach seeks to ensure that such integrations are sustainable, positively impacting overall productivity, worker satisfaction, and safety in the long term.

Managing identities during the COVID-19 outbreak: A longitudinal study on long-term implications for adolescents' psychosocial development (1 scholarship; Supervisor: Prof. Elisabetta Crocetti)

The selected candidate will conduct research within the scope of the project "Managing identities during the COVID-19 outbreak: A longitudinal study on long-term implications for adolescents' psychosocial development" ("IDENTITIES through pandemic"; project number R20CMJ9NHP; CUP J33C22003590001).

Answering the fascinating question "Who am I?" is the adolescents' most important developmental task. In contemporary societies characterized by increasing cultural and ethnic diversity, identity formation can be particularly challenging for both adolescents with (e.g., first- and second-generation immigrants) and without a migrant background. Furthermore, the COVID-19 outbreak had a profound impact on adolescents' lives, undermining their identity exploration, social interactions, and adjustment.

The project “IDENTITIES through pandemic” adopts a cross-fertilization approach and draws from developmental contextualism, transactional, and resilience theories to comprehensively understand adolescents’ pathways during and after the COVID-19 outbreak. Funded by MUR, this project builds upon and expands the project IDENTITIES, funded by the European Research Council (<https://site.unibo.it/identities/en>).

Targeting both adolescents with and without a migrant background, the project “IDENTITIES through pandemic” aims to examine:

- 1) How the evolution of the pandemic (considering both objective indicators and subjective perceptions) influence adolescents’ interactions in their ecological contexts (e.g., family, peers, school, and leisure contexts), identities (personal, social, and human), and well-being (physical, psychological, and social)
- 2) How experiences in multiple ecological contexts, identity processes, and well-being explain different responses to the pandemic threat
- 3) How navigating through the pandemic (being more or less hit by it) moderates the theoretical model, according to which positive intergroup experiences in multiple ecological contexts can be a resource for developing adolescents’ identities and, doing so, for enhancing their well-being
- 4) How adolescents’ developmental pathways during the pandemic predict psychosocial outcomes in the subsequent years when they become late adolescents and face the transition to emerging adulthood.

To achieve these aims, a longitudinal (with annual, monthly and daily assessments and a long-term follow-up), multi-method (with quantitative and qualitative data collected through questionnaires, actigraphs, and interviews), and multi-informant (with data collected from adolescents, parents, teachers, school principals, municipal administrators, archives, and non-invasive medical devices) research is being conducted.

Psychological resources for coping with transitions (1 scholarship)

This scholarship is funded within the scheme “Progetti di formazione per la ricerca 40° e 41° Ciclo - Territorio: Transizione tecnologica, culturale, economica e sociale verso la sostenibilità - PR FSE+ 2021/2027 Priorità 2. Istruzione e Formazione – Obiettivo specifico e).

The selected candidate will do research on psychological resources for coping with transitions, consistent with the research lines pursued at the Department of Psychology.