# PHILOSOPHY, SCIENCE, COGNITION, AND SEMIOTICS (PSCS)

Sezione "Posti e borse di studio" integrata il 28/05/2020				
Coordinator	Prof. Claudio Paolucci Department of Philosophy and Communication Studies Via Azzo Gardino 23 - Bologna c.paolucci@unibo.it			
Starting date of the PhD Programme	01/11/2020			
Duration	3 calendar years			
Language of the PhD Programme	Italian and English			
Mandatory stay abroad	Yes (6 months)			
Curricula	Research topics			
1. Philosophy and Science Studies	It is well-known that ca. 1830 the domain of philosophy and the domain of science began parting ways. Before that date, philosophy included also the kind of natural philosophy that we would now call science, and philosophers had often a training allowing them to excel in the sciences. After that date, science and scientists grew increasingly autonomous, and began establishing new specialties, new languages, and robust ties with technology in ways that have estranged many subsequent generations of philosophers up to this day. While acknowledging the substantial autonomy of philosophy and science in present-day research and educational institutions, the <b>curriculum in Philosophy and Science Studies</b> will provide a training allowing doctoral students to explore both the conflicts and the persistent links characterizing the relationships between philosophy and science. The curriculum will combine fields like analytic and continental traditions in philosophy, the history and philosophy of science, logic and the philosophy of language, science and technology studies. There is a growing awareness that the humanities can provide important cultural, historical and philosophical perspectives on questions affecting citizens living in a world largely shaped by science and technology. Reciprocally, there is a growing awareness in scientific circles that a clearer understanding of the intellectual, philosophical, social, and moral issues at stake in science and technology may benefit science itself. The curriculum aims at training PhD students who will develop fresh insights into a range of issues that defy the traditional partitions among philosophy, science, and technology.			
2. Semiotics	The educational goals of the <b>curriculum in semiotics</b> are to develop theoretical and practical competencies in semiotics both from a theoretical-philosophical perspective, and in terms of their practical-methodological application. In particular, from a theoretical perspective, we shall examine relevant themes related to the development of philosophical and linguistic theories of signs and semiosis, key elements in the history of semiotics, as well as comparisons between different sign systems: linguistic, visual, multimodal, etc. On the application plane, necessary methodological tools will be provided to carry out in depth analyses of different types of textual objects: verbal, visual, behavioral, musical, audiovisual, etc. To this end the principal theoretical and methodological currents characterising the semiotic tradition, from structuralism to interpretational semiotics, will be examined in depth.			
3. Cognitive Science	The main research topics of the curriculum on Cognitive science are:  - Attention - Objects and action, affordances - Role of the body in cognition, sense of body - Language grounding in the perception, action and emotion systems - Emotions and sensorimotor system - Numerical cognitiom and its relationship with embodied cognition - Social cognition Students are required to learn to perform experiments in the lab - they will have to learn to plan them, to execute them and to analyze the data. They will be required to learn to realize classical behavioral experiments, in which reaction times and errors are recorded. In addition, they will be invited to learn to use at least one of the three instruments that we possess - eye tracking, motion tracking or TMS. In order to discuss with students the experiments they are conducting, from their planning to the data analysis, we will organize a lab meeting to be held every month. Students and professors will discuss together research projects, and students will have the opportunity to learn how to present a study. We will also organize periodical meetings to discuss some scientific papers. Students will be invited to present to the others an overview of the main topics and open issues in their area. Compared to other doctoral curricula in cognitive science, our curriculum is characterized by a higher attention paid to psychology (especially cognitive psychology and communication psychology).			

#### PhD positions and scholarships

Position n.	Financial support	Description	Positions linked to research subjects
1	PhD Scholarship	Totally funded by the University of Bologna general budget	
2	PhD Scholarship	Totally funded by the University of Bologna general budget	
3	PhD Scholarship	Totally funded by the University of Bologna general budget	
4	PhD Scholarship	Totally funded by the University of Bologna general budget	
5	PhD Scholarship	Funded by the University of Bologna general budget and co-funded by the Department of Philosophy and Communication Studies with funds made available by the project Erasmus+ "NEMO - New Monitoring Guidelines to develop innovative ECEC teachers curricula"	Semiotic analysis of prelinguistic interactions between caregivers and infants (9-18-monthold), with a special focus on Autism Spectrum Disorders. Further information about the project can be found at the end of this document.*
6	PhD Scholarship	Funded by Fondazione Carisbo	

**Positions linked to specific research subjects:** during the oral test, applicants may express their interest in one or more positions linked to specific research subjects. Considering the expressions of interest above, the Admission Board shall express its view on the suitability of the interested applicants, taking into account their specific skills, experience and aptitude

#### Admission requirements

Please, see art. 2 of the Call for applications

# Mandatory documents to be attached to the application

Please, see art. 3 of the Call for applications

Further qualifications that may be attached to the application, if in possession of the applicant (only qualifications attested by documents drawn up in Italian, English, French, German and Spanish shall be considered as valid and assessed by the Admission Board)

- Abstract of the second cycle master's degree thesis. Undergraduate applicants may submit the draft of the thesis approved by their supervisor (please, note that abstracts cannot exceed 5.000 characters, including spaces and formula possibly used. The above figure does not include: the title of thesis, the outline, and images such as graphs, diagrams, tables etc. where present);
- At least one and no more than 3 reference letters attesting the candidate's suitability and interest in scientific research by Italian and international university academics/professionals who are not part of the Admission Board. N.B. Reference letters must not be attached to the application directly by the applicant. When filling in the application on the website <a href="http://studenti.unibo.it">http://studenti.unibo.it</a>, the candidate must only enter the e-mail address of the requested academic/professional. The latter will receive an e-mail containing instructions for uploading the letter. The upload of the letter must be completed by the academic/professional only in pdf format by and no later than the expiry date and time of the present call.
- Multi-annual research project, with special emphasis on the activities to be completed during the first-year course. The proposal must meet the following requirements:
  - o It must indicate in the cover page the curriculum of the PhD Programme the applicant is interested in and that covers the research project proposal;
  - It cannot exceed 20.000 characters, including spaces and formula possibly used. This figure does not include: the title of project, the outline, references and images (the part exceeding the threshold above will not be evaluated);
  - It must include: the state of the art; description and structure of the project; expected results; lead-time for implementation; (proposed) criteria to be used to assess the findings obtained; references.

The research projects that successful applicants shall carry out during their doctoral career may possibly differ from the project proposed at the application stage. This shall be defined together with the supervisor and approved by the Academic Board.

- Motivation Letter describing the reasons why the applicant wants to attend the doctoral programme as well as the experiences carried out and the research interests that make him/her suitable for the doctoral programme (max 3,000 characters, including spaces).
- List of publications (monographs, articles published on scientific journals, volume chapters).
- Professional Master courses completed in Italy (1st or 2nd level) relevant to the PhD Programme.
- Postgraduate vocational training programmes/specialisation courses relevant to the PhD Programme.
- Teaching activity carried out at university level.

- 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.
- Documents attesting the knowledge of foreign languages.
- Study periods spent abroad (e.g. Erasmus programme or other similar mobility programmes).
- Other qualifications attesting the suitability of the applicant (scholarships, prizes, etc).

#### Admission exams (art. 4 of the call for applications)

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I = Yamınatını	Schedule (please, note that applicants shall not receive any communication concerning the exams schedule)		Examination results publication (please, note that applicants shall not receive any communication concerning the publication of results)			
Qualifications and research project evaluation	Non-presential.		The results of the qualifications and research project evaluation shall be available online starting from the <b>01/06/2020</b> at the page http://studenti.unibo.it (please, select "summary of the requests in progress" - "see detail" and open the pdf file "risultati valutazione titoli e progetto")			
Oral examination	Date	08/06/2020 In case that the oral examination cannot be completed in one day due to the large number of applicants, the oral exam schedule shall be made available at the webpage <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> together with the results of the qualifications and research project evaluation	The results of the oral examination shall be available on the webpage <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> starting from 15/06/2020 (please, select "summary of the requests in progress" - "see detail" and open the pdf file "risultati prova orale")			
	Time	10:00 a.m. (local time)				
	Applicants shall take the exam remotely. For further details please refer to the relevant provision laid down in art. 4 of the Call for applications.					

#### **Evaluation criteria**

Points will be allocated to applications out of a total of 100 on the basis of the following weighting:

## 1. Qualifications and research project

- Minimum for admission to the oral exam: 30 points
- Maximum: 50 points

Only qualifications relating to the last 5 calendar years prior to the calendar year of publication of the Call for applications shall be taken into consideration, with the exception of the University Degree (Diploma di laurea). Please, note that qualifications must be consistent with the PhD Programme.

Points relating to qualifications shall be allocated on the basis of the following criteria:

- Graduation final mark. Undergraduates shall be evaluated on the basis of the Weighted Average Mark (WAM): max 10 points
- Publications and other qualifications: max 10 points

Points relating to the research project shall be allocated on the basis of the following criteria:

- Scientific value and ground-breaking nature of the proposal: max 10 points
- description and structure of the proposal: max 10 points
- proposal feasibility: max 10 points

#### 2. Oral examination

- Minimum for inclusion in the final ranking list: 30 points
- Maximum: 50 points

Oral examination includes the presentation of the research project and is intended to assess the suitability of the applicant in respect of the pursuing of scientific research as well as the general knowledge of issues connected to the PhD Programme.

During the oral examination, knowledge of English language shall be assessed.

The oral examination is carried out in Italian or in English.

Points relating to the oral examination shall be allocated on the basis of the following criteria:

- knowledge of the English language: max 10 points
- research project presentation: max 30 points
- general knowledge of issues connected to the PhD Programme: max 10 points

Possible evaluation sub-criteria will be available on the  $\underline{\text{Unibo website}}$ , selecting the relevant PhD Programme  $\rightarrow$  "PhD programme information" at the bottom of the page in the section "Notices".

## Final ranking list and enrolment (arts.6 and 7 of the call for applications)

After the publication of the results of the oral exam, the final ranking list will be available on the <u>Unibo website</u>, selecting the relevant PhD Programme → "PhD programme information" at the bottom of the page in the section "Notices". Following the publication of the final ranking list, successful applicants must enrol on <a href="http://studenti.unibo.it">http://studenti.unibo.it</a> by the deadline indicated on the <u>Unibo website</u>, selecting the relevant PhD Programme → "PhD programme information".

\*PhD scholarship linked to a specific research subject, in the framework of Erasmus+ project "NEMO – New Monitoring Guidelines to develop innovative ECEC teachers curricula" (KA2, School Education; Grant Agreement 2019-1-IT02-KA201-063340; 1.9.2019 – 31.08.2022).

The PhD position will be opened within the framework of the Erasmus+ project (KA2 Strategic Partnership in the field of School Education; 1.9.2019 - 31.08.2022) "NEMO – New Monitoring Guidelines to develop innovative ECEC teachers curricula" 2019-1-IT02-KA201-063340. The NEMO project aims to equip preschool teachers with the necessary knowledge and competences in order to be able to access children affected by ASD in the classroom activities as well as introduce innovative curricula and monitoring tools into a unified framework ISCED 0 (0 – 6). The candidate is expected to submit a research proposal that aims at exploring the relationship between ASD children and caregivers over the pre-linguistic phase. The project will have to focus on studies and researches leading towards the individuation of recurrent patterns interpretable as early signals of neurodevelopmental disorder. Special attention to a semiotic methodology of analysis of embodied interactions is required. Furthermore, the research will have to provide innovative features for the realization of educational tools aimed at coaching ECEC teachers on how to detect the signs of possible future impairments, improve their monitoring schemes and renew their curricula into a unitary pre-school framework.