University of Trento

# Department of Psychology and Cognitive Science

English-taught Masters

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## The Department of Psychology and Cognitive Science

The Department of Psychology and Cognitive Science - DiPSCo - is a lively and innovative centre for the study of cognitive science, experimental and clinical neuroscience, and for educational purposes. DiPSCo is recognized as one of the leading research centres in cognitive science, and ranked 2<sup>nd</sup> in Italy for Quality of Research in the last available survey (ANVUR, 2013). The Department's core research focuses on three main areas: Clinical Neurosciences, The Social Mind, and Organization, Education, and Identity, with multidisciplinary approaches to Perception, Language, Memory and Attention; Cognitive and affective Neuroscience; Technologies and Cognitive Ergonomics; Education; Applied and Social Psychology; Organization Behaviour; Human Development. Empirical work, theoretical analyses, and model development in these areas have been pursued through the interplay of various skills and knowledge, different research perspectives, and the contribution of numerous disciplines. Behavioural as well as neurophysiological measures of behaviour are collected, and instrumentations include EEG - both fixed and mobile equipment, eye-tracking tools, ECG, EMG, and GSR. Collaboration with leading labs in several Countries - e.g. Riken Brain Science Institute (Japan), Child and Family Research-NIH (USA), IRRCS Stella Maris (Italy) - fosters comparative and cooperative research studies, complementing the collaboration with several Departments of the University – notably the Department of Information Engineering and Computer Science, the Department of Humanities, and the Department of Sociology and Social Research, and with public and private research centres in the region, such as the Bruno Kessler Foundation and the Marica De Vincenzi Foundation onlus.

The research activity is closely linked to high-quality teaching, and DiPSCo offers training programs at Undergraduate, Master's, and Doctorate level. Specifically, DiPSCo is responsible for the following programs:

#### Undergraduate courses (in Italian):

- Science and Methods in Cognitive Psychology;
- · Communication Technologies and Interfaces;
- Professional Educator (jointly with the School of Medicine, Ferrara University).

#### Master's Degree:

- Psychology (in Italian): Track 1, Work and Organizational Psychology; Track 2, Neuroscience;
- Human-Computer Interaction (jointly with the Department of Information Engineering and Computer Science).

**International Doctoral program** in Psychological Science and Education.

Students' evaluation of the courses is quite high, and 80-100% were satisfied with their courses.

## Living in Rovereto

Rovereto, with about 35,000 residents, is at the centre of the Adige Valley, in the Alps, along the main road linking Innsbruck (Austria) and Verona (Italy). It is surrounded by mountains and hills, and several nice spots such as lake Garda and the city of Arco are very nearby. In the city itself, prestigious Eighteenth century buildings, such as the *Accademia degli Agiati, Palazzo Istruzione*, the Zandonai Theatre, and traces of a Venetian past in its historical centre, coexist with modern infrastructures and nature. In Rovereto you can visit museums of art, history and science. Mart, the Museum of Modern and Contemporary Art of Trento and Rovereto, designed by Botta, hosts a spectacular permanent exhibition of modern and contemporary art, among the best in Italy; the House of Futurist Art is dedicated to Fortunato Depero and other artists; the War Museum and Castle; the City Museum Foundation, the well-known Peace Bell at the field of peace in remembrance of the fallen soldiers of every war.

Rovereto offers a rich programme of artistic events, from dance, theatre, music, cinema and archaeological events, to seasons of prose and shows: Oriente-Occidente, the Mozart Festival, the Archaeological Cinema Festival, the Lagarina Jazz Festival and Historical Reenactments of the City of Ala (a few kilometres south of Rovereto).

There is a very wide range of sport possibilities to choose from: mountain biking, mountain climbing, trekking, canoeing, horse-riding, skiing, ice skating, speleology, fishing, windsurfing, sailing, tennis. Also, ski slopes are nearby and easily reached, as are natural and artificial climbing walls in Arco and surfing facilities at lake Garda.





## Master in Human-Computer Interaction (MHCI)

The Master in Human-Computer Interaction (MHCI) is offered in collaboration with the Department of Information Engineering and Computer Science. It aims at investigating people and their actions as a starting point for the purposes of technology design. It provides an effective approach to address the many challenges (public engagement, participation, privacy, emotion) currently faced by computer sciences.

The ultimate goal of the Master is to train a new generation of researchers and professionals, who can understand the complexity of human cognition, behaviour and emotion at a micro-, meso- and macro-level and are able to embed this knowledge in new computing artefacts and technologies matching the most diverse human values, interests and needs.

MHCI aims at training professional figures and researchers with a wide range of multidisciplinary skills to understand, design and evaluate new interaction possibilities between human beings and IT devices.

The Master is structured into three specialisation areas:

- social-cognitive area: brain/mind interaction and cognitive ties;
- computer science area: user-interfaces; user-centred design; participatory design; human-machine interaction; prototyping of interactive systems, affective computing, e-learning;
- methodological area: qualitative and quantitative methodologies; visual, ethic and epistemological planning.

#### Specific learning outcomes:

- acquaintance with simulation, observation and experimental methods in the study of the interaction between human beings and complex systems;
- ability to plan a user-centred design of user interfaces;
- theoretical and practical knowledge of communication and decision-making processes;
- secure knowledge of quantitative and qualitative data collection and analysis;
- capability to analyse decision-making processes, at individual and collective level, in organisational, economic and social contexts;
- · capability to autonomously carry out basic and applied research activity.

#### By virtue of its interdepartmental nature, the course:

- 1. offers an integrated programme that allows students to pursue their own research interests in an interdisciplinary research environment:
- 2. fosters the development of research skills in areas that several departments are concerned with;
- 3. provides specialised skills which are not included in traditional degree courses.

### Programme overview

| Main application deadline     | Non-EU: January/February each year<br>EU: June each year   |
|-------------------------------|--|
| Extended application deadline | http://web.unitn.it/en/cogsci/38780/admission  |
| Intake                        | September each year  |
| Duration                      | 2 years full time  |
| Minimum requirements          | Bachelor's degree and/or official university transcripts.  A first-level degree (at least three years) awarded by an internationally recognized university-level institution is the minimum requirement in order to apply for MHCI. You are required to scan a copy of your degree and attach it to the application in the dedicated area. |
| Selection criteria            | Curriculum vitae and motivation letter English language certificate – B2 CEFR level or higher Recommendation letters Specific preparation in Information science and/or Psychology attested by bachelor degree's exams   |

#### Career opportunities

Graduates will acquire a solid background in the field of communication technologies for the creation and development of user-oriented and environmentally sustainable products and interfaces, thus meeting a demand which has been constantly increasing on the market of new technologies.

They can be employed in both the private (e.g. marketing, research, industries dealing with the creation and development of products requiring a human interface), and the public sector (e.g. health, services, research).

Graduates can also become self-employed and work as consultants for private and public institutions concerned with the analysis and development of human-computer interaction, ergonomic systems and computational models of cognitive processes.

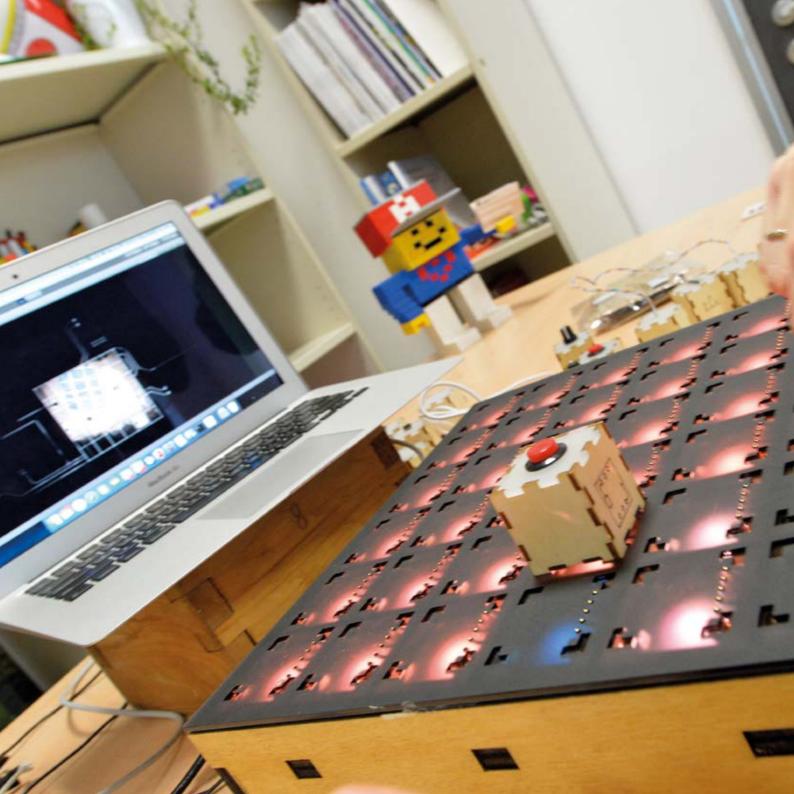
#### Admission requirements

Applicants having the minimum requirements will be selected according to the following criteria:

- Curriculum vitae and motivation letter
- English language certificate B2 CEFR level and above
- Recommendation letters
- Specific preparation in Information science and/or Psychology attested by bachelor's degree exams

The MHCI Admission Committee strongly relies on motivation letters to select the most motivated applicants. In the online application, students are asked to submit a statement of maximum 4,000 characters where they provide information on their motivation for the Master's program, extracurricular activities and work experience.

Letters of recommendation should be written by your university professors and/or by managers in your company. A mixture of academic and business letters of recommendation may be the best solution if you have some significant work experience after graduating. Complete the section "Referees" in the online application form with the information required about your referees and ask your referees to send the letter directly to us (**mhci@unitn.it**) specifying your name in the subject line. We strongly encourage you to use the sample reference letter in the Download box. Contact us immediately if you or your referees have any problem.





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