

**Tabella 1 - Questa tabella sostituisce la tabella allegata al Regolamento didattico del corso di Laurea magistrale interdipartimentale in Human Computer Interaction emanato con DR 600 di data 30 luglio 2018 e si applica a partire dalla coorte 2021/2022**

<b>Insegnamenti obbligatori primo e secondo anno</b>	
<b>Nome insegnamento</b>	<b>Obiettivi formativi</b>
Design experience	The course consists of two parts: 1) Cognitive ergonomics: the module aims at providing a theoretical base on the cognitive aspects of interaction design as well as the methods and techniques derived from cognitive models of interaction; 2) Participatory design: the module aims at providing a theoretical framework and empirical experience of Participatory Design, including planning a PD project, running it, communicating the results.
Social interaction	Building on the basic concepts of social cognition, the current course aims to provide a comprehensive overview of the emotions, attitudes and behaviors that products and their interfaces can elicit on the self, and how they can impact interpersonal and intergroup interactions in different cultures.
Visual brain and design	The course's objective is to provide the basis for understanding the relationships between structure and function/mind and brain with particular emphasis to the neural mechanisms underlying visual and multisensory perception, and attention. These processes will be explored through the study of cognitive neuroscience paradigms, and discussed in the framework of visual design and human-computer interaction.
Research methodology quantitative	The course covers some basic/intermediate statistical and computational analyses for conducting empirical quantitative research. The statistics introduced will serve to explore quantitative data and organize data for statistical analysis and modeling. The statistical procedures will be illustrated using the R statistical package. Topics in the course will include: experimental design, questionnaires and surveys (both paper and pencil format and online format), social network analysis, and inferential statistics including generalized linear mixed models.
Research methodology qualitative	The course intends to analyze the theoretical and methodological framework of the qualitative research and to teach how to use the main qualitative methods and tools.
Design epistemology and ethics	Students will be provided with solid theoretic-philosophical tools to understand the role that emotions play in interpreting verbal and non-verbal messages (i.e. whether they are assessed positively or negatively and are considered to be plausible). Students will acquire theoretical knowledge about the role emotions play in persuasive communication, in moral judgments, in situations that can potentially trigger empathic processes and, more generally, in the assessment of/reactions to various kinds of messages. At the end of the course, students will be able to recognize various kinds of persuasive messages; to identify what principles underpin various persuasive strategies and how these are based on moral judgments, emphatic mechanisms and other kinds of emotional reactions; what emotions are involved and how these can influence our understanding of the message.
Affective computing	This class explores computing that relates to, arises from, or deliberately influences emotion. The aim is to identify the important research issues, and to ascertain potentially fruitful future research directions in relation to the multimodal emotion analysis and to human-computer interaction. In particular, the course will introduce key concepts, discuss technical approaches, and open issues in the following areas: interaction of emotion with cognition and perception; the role of emotion in human-computer interaction; the communication of human emotion via face, voice, physiology, and behavior; construction of computers that have skills of emotional intelligence; the development of computers that "have" emotion; and other areas of current research interest.
Prototyping interactive systems	The course covers methodologies for designing and prototyping graphic user interfaces. Principles of design research and visual communication are presented in the context of interaction design, cognition and user behavior.
Tirocinio formativo	----
Prova finale	----

<b>Insegnamenti a scelta vincolata: 6 CFU tra i seguenti insegnamenti</b>	
<b>Nome insegnamento</b>	<b>Obiettivi formativi</b>
Bridging HCI to Psychology	The course objective is to provide a common perspective on HCI terminology and approaches and an historical perspective on the discipline specifically on its relation and historical evolution with cognitive psychology. Students will acquire theoretical knowledge about the role cognition plays in interacting with digital technologies and the importance of the recent advances in neuroscience for the future of HCI.
Bridging HCI to Computer Science	The course objective is to provide a common perspective on HCI terminology and approaches and an historical perspective on the discipline specifically on its relation and historical evolution with computer science. Students will acquire theoretical knowledge on the major technical patterns of digital interactive infrastructure and a working knowledge on computational thinking.
<b>Insegnamenti a scelta vincolata (*): 6 CFU tra i seguenti insegnamenti:</b>	
Cognitive Neuroscience and Neurotechnology	The course analyzes how interactive technologies may benefit from careful consideration of cognitive and brain processes. Specific emphasis will be devoted to the application of such knowledge to implement technological devices to help individuals suffering from psychological and neurological problems
Visual design	The course covers principles of visual design that will allow for efficient organization and presentation of information using technological interfaces. Topics will include typography, information architecture, layout, color, and design principles with specific reference to mobile devices.
Nonverbal behavior and interaction	Nonverbal behaviors such as facial expressions, body movements and touch may communicate interpersonal attitudes, social relations, affective states, or personality traits to the interaction partners (being humans or artificial agents). This course focuses on analysis and generation of nonverbal behaviors. During the course students will learn basic concepts of social psychology and psychology of emotions, and how these concepts can be modeled with the recent AI techniques (e.g., machine learning). This includes automatic recognition and classification of humans' internal states from nonverbal behaviors, as well as modelling and synthesis of nonverbal behaviors for the purpose of human-artificial agent (e.g., intelligent virtual agent) interaction.
<b>Insegnamenti a scelta vincolata (*): 6 CFU tra i seguenti insegnamenti:</b>	
Educational technology	This course focuses on the theory and the practice of the design of Interactive applications for human use in real life contexts. The theme of the course may range from e-learning, to mobile computing, game design, or e-health. The objective of the course is to develop an awareness of the theoretical and practical assumptions a designer needs to make in order to develop useful, usable and engaging application for real life use.
Multisensory interactive systems	This course introduces new paradigms of interaction beyond graphical users interfaces and in particular multisensory, physical and tangible interactions. In particular it aims at providing students with an understanding of concepts and techniques for designing usable and engaging interactive systems within these paradigms including the introduction of a tools for building prototypes.
Design for social inclusion	The course will explore the interaction and institutional conditions for the design of physical, technological and organizational devices able to provide greater chances of inclusion of disadvantaged groups.

(\*): annualmente verrà valutata l'opportunità di attivare tutti o alcuni degli insegnamenti indicati

**Tabella 2 – Questa tabella sostituisce la tabella allegata al Regolamento didattico del corso di Laurea magistrale interdipartimentale in Human Computer Interaction emanato con DR 600 di data 30 luglio 2018 e si applica a partire dalla coorte 2021/2022**

### I ANNO DI CORSO

#### Insegnamenti obbligatori

Nome insegnamento	CFU	SSD	Tipo attività formativa	Propedeuticità
Design experience	12	ING-INF/05	Caratterizzante	---
Social interaction	6	M-PSI/05	Caratterizzante	---
Visual brain and design	6	MED/37	Affine integrativa	---
Research methodology – quantitative	6	M-PSI/03	Caratterizzante	---
Research methodology – qualitative	6	SPS/07	Caratterizzante	---
Design epistemology and ethics	6	M-FIL/04	Affine integrativa	---

### I ANNO DI CORSO

#### Insegnamenti a scelta vincolata: 6 CFU tra i seguenti insegnamenti:

Nome insegnamento	CFU	SSD	Tipo attività formativa	Propedeuticità
Bridging HCI to Psychology	6	M-PSI/05	Caratterizzante	---
Bridging HCI to Computer Science	6	INF/01	Caratterizzante	---

### II ANNO DI CORSO

#### Insegnamenti obbligatori

Nome insegnamento	CFU	SSD	Tipo attività formativa	Propedeuticità
Affective computing	6	INF-INF/05	Caratterizzante	---
Prototyping interactive systems	6	INF/01	Caratterizzante	---
Tirocinio formativo	18		Altre attività	---
Prova finale	18		Altre attività	---

### I e II ANNO DI CORSO

#### Insegnamenti a scelta vincolata: 6 CFU tra i seguenti insegnamenti:

Nome insegnamento	CFU	SSD	Tipo attività formativa	Propedeuticità
Cognitive Neuroscience and Neurotechnology	6	M-PSI/02	Caratterizzante	---
Nonverbal behavior and interaction	6	INF/01	Caratterizzante	---
Visual design	6	ICAR/17	Affine integrativa	---

#### Insegnamenti a scelta vincolata: 6 CFU tra i seguenti insegnamenti:

Nome insegnamento	CFU	SSD	Tipo attività formativa	Propedeuticità
Educational technology	6	INF/01	Caratterizzante	---
Multisensory interactive systems	6	ING-INF/05	Caratterizzante	---
Design for Social inclusion	6	SPS/07	Caratterizzante	---

### INSEGNAMENTI A SCELTA LIBERA - 12 cfu

Il percorso formativo prevede l'acquisizione di 12 CFU senza vincoli di settore scientifico disciplinare scelti tra gli insegnamenti che vengono appositamente attivati dal corso di laurea e annualmente pubblicati nel manifesto degli studi o tra quelli attivati dall'Ateneo.