



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

REGOLAMENTO DIDATTICO DEL CORSO

LM-43 R DIGITAL HUMANITIES AND DIGITAL KNOWLEDGE

Sede di Bologna

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Qualora, unicamente a scopo di sintesi, nel presente regolamento sia usata la sola forma maschile, questa è da intendersi riferita in maniera inclusiva a tutte le persone che operano nell'ambito della comunità stessa.

ART. 1 REQUISITI PER L'ACCESSO AL CORSO

a. Conoscenze richieste per l'accesso

Per essere ammessi al corso di laurea magistrale in Digital Humanities and Digital Knowledge occorre essere in possesso di una laurea, di un diploma universitario di durata triennale, o di altro titolo di studio conseguito all'estero, riconosciuto idoneo.

Occorre, altresì, il possesso dei seguenti requisiti curriculari:

Avere conseguito la laurea in una delle seguenti classi:

- L - 1 Beni culturali
- L - 3 Discipline delle arti figurative, della musica, dello spettacolo e della moda
- L - 5 Filosofia
- L - 8 Ingegneria dell'informazione
- L - 10 Lettere
- L - 11 Lingue e culture moderne
- L-12 Mediazione Linguistica
- L - 15 Scienze del turismo
- L - 19 Scienze dell'educazione e della formazione
- L - 20 Scienze della comunicazione
- L - 31 Scienze e tecnologie informatiche
- L - 42 Storia
- L - 43 Diagnostica per la conservazione dei beni culturali

e avere acquisito 24 CFU nei seguenti SSD:

- INF/01 INFORMATICA
- ING - INF/05 SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI
- L - ART/04 MUSEOLOGIA E CRITICA ARTISTICA E DEL RESTAURO
- L - FIL - LET/10 LETTERATURA ITALIANA
- L - FIL - LET/11 LETTERATURA ITALIANA CONTEMPORANEA
- L - FIL - LET/13 FILOGIA DELLA LETTERATURA ITALIANA
- L - LIN/01 GLOTTOLOGIA E LINGUISTICA
- M - FIL/05 FILOSOFIA E TEORIA DEI LINGUAGGI
- M - STO/08 ARCHIVISTICA, BIBLIOGRAFIA E BIBLIOTECONOMIA
- M - STO/09 PALEOGRAFIA

di cui almeno 6 CFU in INF/01 o ING - INF/05

Per coloro che sono in possesso di un titolo di studio estero o di una laurea del previgente ordinamento, la Commissione procede alla valutazione e verifica del possesso delle conoscenze e delle competenze sulla base della carriera pregressa.

L'ammissione al corso di laurea magistrale è subordinata, inoltre, al superamento di una verifica dell'adeguatezza della personale preparazione che avverrà secondo le modalità definite al punto Modalità di ammissione.

È richiesta, inoltre, la conoscenza della lingua inglese di livello almeno B2 del Quadro comune europeo di riferimento per la conoscenza delle lingue.

b. Modalità di ammissione

Verifica dell'adeguatezza della personale preparazione

La verifica della personale preparazione si ritiene assolta se il laureato supera una prova di verifica attraverso la modalità (e.g. prova scritta, test, colloquio) descritta in dettaglio nell'avviso di ammissione che verrà pubblicato nel sito del Corso di studio.

Sarà inoltre previsto l'accertamento delle conoscenze e delle competenze della lingua inglese livello B2 tramite modalità e scadenze stabilite dal Consiglio di Corso di Studio e pubblicate nell'avviso di ammissione.

ART. 2 PIANI DI STUDIO INDIVIDUALI

È prevista la possibilità di presentazione di piani di studio individuali con le modalità, i criteri e i termini resi noti tramite il Portale di Ateneo.

I piani di studio individuali, approvati dal Consiglio di corso di studi, non possono comunque prescindere dal rispetto dell'ordinamento didattico.

Qualora il piano di studio preveda la scelta di attività formative attivate presso corsi di studio a numero programmato, l'ammissione alle stesse deve essere previamente approvata anche dal Consiglio di corso di studio a numero programmato sulla base di criteri da questo preventivamente individuati.

ART. 3 MODALITÀ DI SVOLGIMENTO DELLE ATTIVITÀ FORMATIVE E TIPOLOGIA DELLE FORME DIDATTICHE

Il piano didattico allegato indica le modalità di svolgimento delle attività formative e la relativa suddivisione in ore di didattica frontale, di esercitazioni pratiche o di tirocinio, nonché la tipologia delle forme didattiche. Eventuali ulteriori informazioni in merito saranno rese note annualmente sul Portale di Ateneo.

ART. 4 FREQUENZA E PROPEDEUTICITÀ

L'obbligo di frequenza alle attività didattiche è indicato nel piano didattico allegato.

Le modalità e la verifica dell'obbligo di frequenza, ove previsto, sono stabilite annualmente dal corso di studio in sede di presentazione della programmazione didattica e rese note agli studenti prima dell'inizio delle lezioni tramite il Portale di Ateneo.

ART. 5 PERCORSO FLESSIBILE

Lo studente può optare per il percorso flessibile che consente di completare il corso di studio in un tempo superiore o inferiore alla durata normale secondo le modalità definite nel Regolamento Studenti.

Le attività formative previste dal percorso di studio, in caso di necessaria disattivazione, potranno essere sostituite, per garantire la qualità e la sostenibilità dell'offerta didattica.

ART. 6 PROVE DI VERIFICA DELLE ATTIVITÀ FORMATIVE

Il piano didattico allegato prevede i casi in cui le attività formative si concludono con un esame con votazione in trentesimi ovvero con un giudizio di idoneità.

Le modalità di svolgimento delle verifiche sono stabilite annualmente dal Consiglio di corso di studio in sede di presentazione della programmazione didattica e rese note agli studenti prima dell'inizio delle lezioni tramite il Portale di Ateneo.

ART. 7 ATTIVITÀ FORMATIVE A SCELTA DELLO STUDENTE

Lo studente può indicare come attività formative autonomamente scelte una o più attività formative tra tutte quelle attivate in Ateneo.

Il Consiglio di corso di studio ha deliberato che tali attività formative sono considerate coerenti con il progetto formativo.

ART. 8 CRITERI DI RICONOSCIMENTO DEI CREDITI ACQUISITI IN CORSI DI STUDIO DELLA STESSA CLASSE

I crediti formativi universitari acquisiti sono riconosciuti fino a concorrenza dei crediti dello stesso settore scientifico disciplinare previsti dal piano didattico allegato.

Qualora, effettuati i riconoscimenti in base alle norme del presente regolamento, residuino crediti non utilizzati, il Consiglio di Corso di studio può riconoscerli valutando il caso concreto sulla base delle affinità didattiche e culturali.

Il riconoscimento è relativo ad insegnamenti impartiti o alle attività formative svolte in lingua inglese.

ART. 9 CRITERI DI RICONOSCIMENTO DEI CREDITI ACQUISITI IN CORSI DI STUDIO DI DIVERSA CLASSE, PRESSO UNIVERSITÀ TELEMATICHE E IN UNIVERSITÀ ESTERE

I crediti formativi universitari acquisiti sono riconosciuti dal Consiglio di Corso di studio sulla base dei seguenti criteri: analisi del programma svolto

valutazione della congruità dei settori scientifico disciplinari e dei contenuti delle attività formative in cui lo studente ha maturato i crediti con gli obiettivi formativi specifici del corso di studio e delle singole attività formative da riconoscere, perseguendo comunque la finalità di mobilità degli studenti. Il riconoscimento è effettuato fino a concorrenza dei crediti formativi universitari previsti dal piano didattico allegato.

Il riconoscimento è relativo ad insegnamenti impartiti o alle attività formative svolte in lingua inglese.

ART. 10 CRITERI DI RICONOSCIMENTO DELLE CONOSCENZE E ABILITÀ EXTRAUNIVERSITARIE

Possono essere riconosciute competenze acquisite fuori dall'Università nei seguenti casi:

- conoscenze e abilità professionali certificate ai sensi della normativa vigente in materia;
- conoscenze e abilità maturate in attività formative di livello post secondario alla cui realizzazione e progettazione abbia concorso l'Università.

La richiesta di riconoscimento sarà valutata dal Consiglio di corso di studio tenendo conto delle indicazioni date dagli Organi Accademici e del numero massimo di crediti riconoscibili fissato nell'ordinamento didattico del corso di studio.

Il riconoscimento potrà avvenire qualora l'attività sia coerente con gli obiettivi formativi specifici del corso di studio e delle attività formative che si riconoscono, visti anche il contenuto e la durata in ore dell'attività svolta.

ART. 11 TIROCINIO CURRICULARE

Il Corso di studio prevede la possibilità di svolgere un tirocinio.

Il corso di studio, su richiesta dello studente, può consentire, con le procedure stabilite dal Regolamento generale d'Ateneo per lo svolgimento dei tirocini o dai programmi internazionali di mobilità di tirocinio, e in conformità alle norme comunitarie, lo svolgimento di un tirocinio finalizzato allo svolgimento della tesi di laurea, o comunque collegato a un progetto formativo mirato ad affinare il suo processo di apprendimento e formazione.

ART. 12 PROVA FINALE

a. Caratteristiche della prova finale

La prova finale per il conseguimento della laurea magistrale consiste nella redazione e nella discussione pubblica di una tesi scritta elaborata in modo originale dallo studente su un argomento coerente con gli obiettivi del corso di studio, sotto la guida di un relatore.

La dissertazione deve dimostrare la padronanza degli argomenti, capacità critica, l'attitudine a operare in modo autonomo e una capacità di comunicazione di buon livello.

b. Modalità di svolgimento della prova finale

Per il conseguimento della Laurea magistrale è prevista la redazione di una tesi, eventualmente corredata da supporti tecnologici e/o da dimostrazioni pratiche, elaborata in modo originale dallo studente sotto la guida di un relatore. La tesi deve essere discussa pubblicamente nel corso della seduta di un'apposita Commissione, formata e nominata secondo quanto disposto dal Regolamento Didattico di Ateneo. La Commissione in via preliminare potrà deliberare sull'ammissibilità del candidato alla prova finale.

La discussione della tesi si potrà configurare come presentazione e discussione, di fronte alla commissione, di un elaborato originale, avente il carattere di un contributo scientifico rigoroso.

L'elaborato dovrà avere, come base critica fondativa, la forma di un testo scritto, ma potrà comprendere una parte applicativa e una dimostrazione pratica.

La prova finale della Laurea magistrale verrà assegnata in una attività formativa indicata dallo studente in accordo con il relatore o il docente con funzione di tutor. Tale disciplina di norma deve essere presente nel piano degli studi, ma in presenza di valide ragioni, lo studente può indicarne anche una diversa da quelle previste dal piano. Il relatore della prova finale è il responsabile dell'attività formativa.

La prova finale può essere collegata a un progetto concordato con una delle aziende che hanno rapporti di collaborazione con la laurea magistrale e/o essere legata ad un'attività di tirocinio. In questo caso la tesi sarà un progetto di ricerca condiviso fra un docente titolare di un corso e il referente d'azienda. La tesi potrà dunque essere l'esito dell'esperienza conseguita durante il tirocinio (tesi in azienda).

Il relatore è affiancato da un correlatore, che è chiamato a contribuire fattivamente all'elaborazione della tesi ed è tenuto ad essere presente alla sua discussione.

La domanda di ammissione alla prova finale dovrà essere presentata on line secondo il calendario deliberato.

Per l'ammissione alla prova finale lo studente deve aver conseguito tutti i crediti formativi previsti dal regolamento didattico per le attività diverse dalla prova finale.

La Commissione Paritetica docenti-studenti ha espresso parere favorevole sulla coerenza dei crediti assegnati alle singole attività formative e gli specifici obiettivi formativi programmati previsti nel piano didattico, ai sensi dell'articolo 12 comma 3 del DM 270/04 e ss.mm.ii.

Anno Accademico 2026/2027
Classe LM-43 R-METODOLOGIE INFORMATICHE PER LE DISCIPLINE UMANISTICHE
Corso 6736-DIGITAL HUMANITIES AND DIGITAL KNOWLEDGE

Primo Anno di Corso

Gruppo: 1.COMPULSORY LEARNING ACTIVITIES

TAF: Ambito:

Cfu min: Cfu max:

Note:

Attività formativa	TIP	SSD	SSD 2024	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
6736 000 000 B8105 - 0 - Computational Management of Data (LM)		INF/01	INFO-01/A		12	60/0/0/0	No	Voto
Ambito: 102 - Discipline informatiche Obiettivi: At the end of the course, the student knows the high-level principles and the historical and theoretical backgrounds for solving problems efficiently using computational tools and information-processing agents, as well as the theoretical and practical groundings for modelling, gathering and managing data using computational techniques. The student is able to understand and use the main data structures for organising information, develop algorithms for addressing computational-related tasks, implement such algorithms in a specific programming language, write and share data using standard formats for spreadsheet and Web consumption, understand and create databases through database management systems, retrieve data using appropriate query languages, build and interpret graphs showing basic descriptive statistics computed from data, and develop and integrate data-driven workflows into software applications. Obiettivi inglese: At the end of the course, the student knows the high-level principles and the historical and theoretical backgrounds for solving problems efficiently using computational tools and information-processing agents, as well as the theoretical and practical groundings for modelling, gathering and managing data using computational techniques. The student is able to understand and use the main data structures for organising information, develop algorithms for addressing computational-related tasks, implement such algorithms in a specific programming language, write and share data using standard formats for spreadsheet and Web consumption, understand and create databases through database management systems, retrieve data using appropriate query languages, build and interpret graphs showing basic descriptive statistics computed from data, and develop and integrate data-driven workflows into software applications.				B				
6736 000 000 B5058 - 0 - Digital Heritage and Multimedia (I.C.) (LM)					12			Voto
Modulo integrato: B5059 - Interaction Media Design (1) (LM) Ambito: 102 - Discipline informatiche Obiettivi: At the end of the course students are put in touch with the intangible cultural heritage mediated by computer science and expressed under the form of practices, representations and skills that the multimedia research community recognizes as part of its identity. Students are able to reflect upon and manipulate a variety of digital instruments, including objects, artifacts and cultural spaces, manifested through interactive multimedia signs and actions. Obiettivi inglese: At the end of the course students are put in touch with the intangible cultural heritage mediated by computer science and expressed under the form of practices, representations and skills that the multimedia research community recognizes as part of its identity. Students are able to reflect upon and manipulate a variety of digital instruments, including objects, artifacts and cultural spaces, manifested through interactive multimedia signs and actions.				B		6	30/0/0/0	No

Modulo integrato: B5060 - Museology, Museography and Virtual Environments (1) (LM)	L-ART/04	ARTE-01/D	6	30/0/0/0	No	
Ambito: 2314 - Discipline storiche, artistiche, antichistiche, archivistiche, gestionali e giuridiche						B
Obiettivi: At the end of the course, students will acquire fundamental knowledge about the concept of museum in its recent transformations from a theoretical/methodological and social-historical perspective. Particular attention will be paid to the museum communicational turn, in terms of both museum studies (museology) and museum practices (museography), to the virtual museum, to the digital curatorship, and to the initiatives that envisage active participation of the public.						
Obiettivi inglese: At the end of the course, students will acquire fundamental knowledge about the concept of museum in its recent transformations from a theoretical/methodological and social-historical perspective. Particular attention will be paid to the museum communicational turn, in terms of both museum studies (museology) and museum practices (museography), to the virtual museum, to the digital curatorship, and to the initiatives that envisage active participation of the public.						
6736 000 000 85445 - 0 - INFORMATION MODELING AND WEB TECHNOLOGIES (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
Ambito: 102 - Discipline informatiche						B
Obiettivi: At the end of the course, the student knows the most important approaches to model information and data structures for permanent and robust storage and management. The student also knows the most recent technologies to create successful web resources (both information-oriented web sites and service-oriented web applications). The student is able to write documents ready to be published on the web, is able to design their visual aspects, is able to verify their correctness and universality, and is able to implement simple distributed applications on the web.						
Obiettivi inglese: At the end of the course, the student knows the most important approaches to model information and data structures for permanent and robust storage and management. The student also knows the most recent technologies to create successful web resources (both information-oriented web sites and service-oriented web applications). The student is able to write documents ready to be published on the web, is able to design their visual aspects, is able to verify their correctness and universality, and is able to implement simple distributed applications on the web.						
6736 000 000 B8106 - 0 - Information Science and Cultural Heritage (LM)	M-STO/08	HIST-04/C	12	60/0/0/0	No	Voto
Ambito: 2314 - Discipline storiche, artistiche, antichistiche, archivistiche, gestionali e giuridiche						B
Obiettivi: The course aims to introduce the issue of organizing knowledge in archives and libraries, providing also a theoretical and practical overview of digital methods for the encoding, analysis, and semantic representation of texts (literary and not). In particular at the end of the course the students will be able to: use the standards of the domain for data description; manage the practices oriented to the enrichment of data through semantic strategies (ontologies and controlled vocabularies); create complex metadata for digital objects in the cultural heritage domain; create, manipulate, query, organise and disseminate electronic documents in digital text collections.						
Obiettivi inglese: The course aims to introduce the issue of organizing knowledge in archives and libraries, providing also a theoretical and practical overview of digital methods for the encoding, analysis, and semantic representation of texts (literary and not). In particular at the end of the course the students will be able to: use the standards of the domain for data description; manage the practices oriented to the enrichment of data through semantic strategies (ontologies and controlled vocabularies); create complex metadata for digital objects in the cultural heritage domain; create, manipulate, query, organise and disseminate electronic documents in digital text collections.						
6736 000 000 85446 - 0 - KNOWLEDGE REPRESENTATION AND EXTRACTION (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
Ambito: 102 - Discipline informatiche						B
Obiettivi: This course aims to initiate to methods for interpretation of data and content as knowledge sources. At the end of the new course the students will be able to: master the basics of knowledge representation and reasoning, with application to the Semantic Web (ontologies, linked data, knowledge patterns); be familiar with the state-of-the-art in knowledge representation and extraction technologies; use applications to automatically extract knowledge from text; analyse the knowledge requirements of a customer, and produce a plan to implement them.						
Obiettivi inglese: This course aims to initiate to methods for interpretation of data and content as knowledge sources. At the end of the new course the students will be able to: master the basics of knowledge representation and reasoning, with application to the Semantic Web (ontologies, linked data, knowledge patterns); be familiar with the state-of-the-art in knowledge representation and extraction technologies; use applications to automatically extract knowledge from text; analyse the knowledge requirements of a customer, and produce a plan to implement them.						
6736 000 000 98870 - 0 - SCHOLARLY EDITING AND DIGITAL TEXTUALITY (1) (LM)	L-FIL-LET/13	LIFI-01/B	6	30/0/0/0	No	Voto
Ambito: 2203 - Discipline linguistiche, filologiche e letterarie						B
Obiettivi: The course aims to provide students with an overview of the main concepts and ideas of textual criticism applied to literary texts, focusing on their linguistic status, their transmission, and their manuscript and print tradition, in relationship with Digital Textuality. The particular pitch of the module, aimed to beginners, will inspire students with basic or limited knowledge of literary history, linguistics and textual criticism to engage with a new and innovative approach to literary texts. Through the analysis of different Digital Scholarly Editions (DSE), by the end of the course the students will be able to recognize the critical paradigm in a DSE and to compare the different theoretical and methodological frameworks for its realization, according to national and international standards, in order to project their own SDE.						
Obiettivi inglese: The course aims to provide students with an overview of the main concepts and ideas of textual criticism applied to literary texts, focusing on their linguistic status, their transmission, and their manuscript and print tradition, in relationship with Digital Textuality. The particular pitch of the module, aimed to beginners, will inspire students with basic or limited knowledge of literary history, linguistics and textual criticism to engage with a new and innovative approach to literary texts. Through the analysis of different Digital Scholarly Editions (DSE), by the end of the course the students will be able to recognize the critical paradigm in a DSE and to compare the different theoretical and methodological frameworks for its realization, according to national and international standards, in order to project their own SDE.						

6736 000 000 85450 - 0 - TEXT RETRIEVAL, ANALYSIS AND MINING (1) (LM) L-LIN/01 GLOT-01/A 6 30/0/0/0 No Voto

Ambito: 2203 - Discipline linguistiche, filologiche e letterarie

Obiettivi: The course aims at initiating to techniques for texts manipulation. At the end of the course the student knows how to process texts using computational tools, how to retrieve and extract information from large text corpora, how to annotate texts with linguistic information, how to classify texts and perform topic modelling and how to manage social media texts for mining information, opinions and sentiments.

Obiettivi inglese: The course aims at initiating to techniques for texts manipulation. At the end of the course the student knows how to process texts using computational tools, how to retrieve and extract information from large text corpora, how to annotate texts with linguistic information, how to classify texts and perform topic modelling and how to manage social media texts for mining information, opinions and sentiments.

Secondo Anno di Corso

Gruppo: 2. FOUR ACTIVITIES TO BE CHOSEN AMONG:

TAF: C Ambito: 2019 - Attività formative affini o integrative

Cfu min: 24 Cfu max: 24

Note:

Attività formativa	TIP	SSD	SSD 2024	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
a) Area Text and Technologies					0-24			
6736 000 000 98877 - 0 - Digital scholarly editing: theory, methods and practice (1) (LM)	L-FIL-LET/13	LIFI-01/B		6	30/0/0/0	No	Voto	
Ambito:								
Obiettivi: The course aims to present DSE Digital Scholarly Editions through a theoretical approach, showing the different typologies, the coding methods used to create them and some exemplary case studies of mono- and multi-text editions of literary texts (poetry and prose, epistolary and correspondence, essays). In the second part of the course, students will participate in the creation (design, marking, edition, visualization, publication) of a DSE, directly experimenting with the contents learned in the first part of the course, in order to deal critically with the problems linked to text criticism in the new digital ecosystem.								
Obiettivi inglese: The course aims to present DSE Digital Scholarly Editions through a theoretical approach, showing the different typologies, the coding methods used to create them and some exemplary case studies of mono- and multi-text editions of literary texts (poetry and prose, epistolary and correspondence, essays). In the second part of the course, students will participate in the creation (design, marking, edition, visualization, publication) of a DSE, directly experimenting with the contents learned in the first part of the course, in order to deal critically with the problems linked to text criticism in the new digital ecosystem.								
6736 000 000 98872 - 0 - Diplomatics of contemporary records (1) (LM)	M-STO/09	HIST-04/D		6	30/0/0/0	No	Voto	
Ambito:								
Obiettivi: The course aims to introduce the basics of "modern diplomatics" starting from the comparison with "classic diplomatics". At the end of the course students will be able to: analyze documents on the basis of their form, formation, functions and uses; distinguish between documents and records; assess the trustworthiness of records in terms of reliability, authenticity, accuracy, and authentication. Students will also be able to use diplomatic analysis as useful instrument for all archival functions, from appraisal to arrangement and description, and from preservation to communication.								
Obiettivi inglese: The course aims to introduce the basics of "modern diplomatics" starting from the comparison with "classic diplomatics". At the end of the course students will be able to: analyze documents on the basis of their form, formation, functions and uses; distinguish between documents and records; assess the trustworthiness of records in terms of reliability, authenticity, accuracy, and authentication. Students will also be able to use diplomatic analysis as useful instrument for all archival functions, from appraisal to arrangement and description, and from preservation to communication.								
6736 000 000 B8107 - 0 - Machine Learning for the Humanities (1) (LM)	INF/01	INFO-01/A		6	30/0/0/0	No	Voto	
Ambito:								
Obiettivi: At the end of the course, the student is familiar with the theoretical principles underpinning modern machine learning. The student is further able to understand, apply and evaluate the main machine learning techniques and implementations relevant to addressing practical problems and tasks in the domains of Cultural Heritage and GLAM. Lastly, the student is able to critically reflect on the preconditions and implications of using machine learning in these domains.								
Obiettivi inglese: At the end of the course, the student is familiar with the theoretical principles underpinning modern machine learning. The student is further able to understand, apply and evaluate the main machine learning techniques and implementations relevant to addressing practical problems and tasks in the domains of Cultural Heritage and GLAM. Lastly, the student is able to critically reflect on the preconditions and implications of using machine learning in these domains.								

6736 000 000 90155 - 0 - NATURAL LANGUAGE PROCESSING (1) (LM)	L-LIN/01	GLOT-01/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: At the end of this course, the student acquires advanced notions about Natural Language Processing with particular attention at the statistical/algorithmic techniques. The methods and instruments from Natural Language Processing will be then applied at each level of linguistic analysis.

Obiettivi inglese: At the end of this course, the student acquires advanced notions about Natural Language Processing with particular attention at the statistical/algorithmic techniques. The methods and instruments from Natural Language Processing will be then applied at each level of linguistic analysis.

b) Area Data Management

0-24

6736 000 000 95781 - 0 - INFORMATION VISUALIZATION (1) (LM)	M-STO/08	HIST-04/C	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: At the end of the course the student knows principles and methods for knowledge acquisition, data sense making, and data visualization. The student will be able to manipulate existing datasets, especially Linked Open Datasets, and perform tasks such as: querying, filtering, normalising, transforming data into suitable data formats for data analysis purposes. Secondly the student will be able to select representative charts for answering research questions through visual graphics. Lastly, the student will be able to create web applications that leverage data storytelling techniques and show results of the data analysis.

Obiettivi inglese: At the end of the course the student knows principles and methods for knowledge acquisition, data sense making, and data visualization. The student will be able to manipulate existing datasets, especially Linked Open Datasets, and perform tasks such as: querying, filtering, normalising, transforming data into suitable data formats for data analysis purposes. Secondly the student will be able to select representative charts for answering research questions through visual graphics. Lastly, the student will be able to create web applications that leverage data storytelling techniques and show results of the data analysis.

6736 000 000 98875 - 0 - Modeling and Processing of Multimedia Data (1) (LM)	ING-INF/05	IINF-05/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: This course aims to initiate to data modeling and processing, firstly by reflecting on content type: starting from traditional metadata, continuing with regular (textual) documents, and concluding with most complex multimedia documents. At the end of the course the students will be able to: master the principles and fundamentals of documents' database design and implementation; master the most suitable methods of documents' content description, together with their indexing techniques and query processing paradigms; evaluate the quality of provided results through quantitative metrics (both for effectiveness and efficiency); be familiar with the state-of-the-art of multimedia database management; analyze the requirements of specific contexts in the cultural heritage domain in order to identify the most appropriate solutions for modeling and managing the underlying data.

Obiettivi inglese: This course aims to initiate to data modeling and processing, firstly by reflecting on content type: starting from traditional metadata, continuing with regular (textual) documents, and concluding with most complex multimedia documents. At the end of the course the students will be able to: master the principles and fundamentals of documents' database design and implementation; master the most suitable methods of documents' content description, together with their indexing techniques and query processing paradigms; evaluate the quality of provided results through quantitative metrics (both for effectiveness and efficiency); be familiar with the state-of-the-art of multimedia database management; analyze the requirements of specific contexts in the cultural heritage domain in order to identify the most appropriate solutions for modeling and managing the underlying data.

6736 000 000 95782 - 0 - NETWORK ANALYSIS (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: "At the end of the course, the student knows the theoretical and practical concepts behind Network Analysis to be able to conduct a scientific inquiry over network data. That entails knowing the mathematical theory of networks — social, biological, technological — and its applications for a quantitative evaluation of the network-driven phenomena.

During the course, the student has the chance to study applications over different fields, like Literature, History, Forensics, Computer Science, and Biology. The course includes practical sessions where the student learns how to automatise network research through the usage of software tools for network analysis and visualisation."

Obiettivi inglese: "At the end of the course, the student knows the theoretical and practical concepts behind Network Analysis to be able to conduct a scientific inquiry over network data. That entails knowing the mathematical theory of networks — social, biological, technological — and its applications for a quantitative evaluation of the network-driven phenomena.

During the course, the student has the chance to study applications over different fields, like Literature, History, Forensics, Computer Science, and Biology. The course includes practical sessions where the student learns how to automatise network research through the usage of software tools for network analysis and visualisation."

6736 000 000 85459 - 0 - OPEN ACCESS AND DIGITAL ETHICS (1) (LM)	IUS/20	GIUR-17/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: At the end of the course, the student knows the open access methodology and movement with particular regard to the scientific and cultural material; the foundations of the digital rights as emerging from the international, European and national regulations; the ethics principles in the digital environment; open government, open data, big data, IoT policies and digital agendas at international and European level, including the connected regulations and case-law; the standards and the core vocabularies in Europe for open data. The student is able to analyse regulations and case-law connected with the knowledge society and to manage the data and information according with the international, European, national legal framework and digital agendas; he/she is able to design solutions of data management with interdisciplinary approach including privacy-by-design and digital ethics principles; he/she is able to plan open data projects for public administrations and private sector compliance with the legal issues; he/she is able to propose metadata models according to the existing core vocabularies and best practices at international, European, national level.

Obiettivi inglese: At the end of the course, the student knows the open access methodology and movement with particular regard to the scientific and cultural material; the foundations of the digital rights as emerging from the international, European and national regulations; the ethics principles in the digital environment; open government, open data, big data, IoT policies and digital agendas at international and European level, including the connected regulations and case-law; the standards and the core vocabularies in Europe for open data. The student is able to analyse regulations and case-law connected with the knowledge society and to manage the data and information according with the international, European, national legal framework and digital agendas; he/she is able to design solutions of data management with interdisciplinary approach including privacy-by-design and digital ethics principles; he/she is able to plan open data projects for public administrations and private sector compliance with the legal issues; he/she is able to propose metadata models according to the existing core vocabularies and best practices at international, European, national level.

6736 000 000 90157 - 0 - OPEN SCIENCE (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: At the end of the course, the students knows the theoretical and social principles characterizing the Open Science movement, as well as the most common practices to set up and develop Open Science projects. The student is able to understand and use the main tools and techniques for gathering, analyzing, modifying, investigating open data of different domains, and to communicate the results of research works and experiments by means of typical and effective Open Science channels, such as the Web and Semantic Publishing technologies

Obiettivi inglese: At the end of the course, the students knows the theoretical and social principles characterizing the Open Science movement, as well as the most common practices to set up and develop Open Science projects. The student is able to understand and use the main tools and techniques for gathering, analyzing, modifying, investigating open data of different domains, and to communicate the results of research works and experiments by means of typical and effective Open Science channels, such as the Web and Semantic Publishing technologies

c) Area Methodologies for Cultural Heritage

0-24

6736 000 000 B5061 - 0 - Cultural Heritage Management (1) (LM)	SECS-P/07	ECON-06/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: The course will train students to look at cultural heritage organizations as, first of all, organizations, with a strong case-based and critical approach. It provides students with some conceptual tools to familiarize with the managerial dimension of cultural heritage organizations, inviting them to acknowledge the specificity and complexity of cultural settings which require careful managerial approaches.

By the end of the course, students are expected to have developed a solid understanding of the nature, the logics, and the main issues of managing cultural heritage organizations.

In particular, students are expected to:

- 1) have developed an understanding of what management is, and what is specific to it in cultural heritage organizations;
- 2) be able to understand how cultural heritage organizations work and sustain themselves (in their main strategic, operational, economic and accounting aspects);
- 3) be able to recognize and discuss cultural heritage management issues in real-world situations, and critically reflect on them.
- 4) Have developed or strengthened abilities of case-based learning: specifically, to analyse, present and critically discuss a case study in public, to recognize elements of theory in case studies, and to mobilize evidence from case studies to illustrate theoretical concepts.

Obiettivi inglese: The course will train students to look at cultural heritage organizations as, first of all, organizations, with a strong case-based and critical approach. It provides students with some conceptual tools to familiarize with the managerial dimension of cultural heritage organizations, inviting them to acknowledge the specificity and complexity of cultural settings which require careful managerial approaches.

By the end of the course, students are expected to have developed a solid understanding of the nature, the logics, and the main issues of managing cultural heritage organizations.

In particular, students are expected to:

- 1) have developed an understanding of what management is, and what is specific to it in cultural heritage organizations;
- 2) be able to understand how cultural heritage organizations work and sustain themselves (in their main strategic, operational, economic and accounting aspects);
- 3) be able to recognize and discuss cultural heritage management issues in real-world situations, and critically reflect on them.
- 4) Have developed or strengthened abilities of case-based learning: specifically, to analyse, present and critically discuss a case study in public, to recognize elements of theory in case studies, and to mobilize evidence from case studies to illustrate theoretical concepts.

6736 000 000 B8111 - 0 - Digital Epistemology (1) (LM)	M-FIL/02	PHIL-02/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: By the end of the course, students will have a solid understanding of key concepts in analytic epistemology, including knowledge, justification, truth, reasons, and understanding. Applying these concepts within the context of digital technologies—particularly artificial intelligence—students will develop the ability to critically analyze phenomena with significant social and cultural implications. These include issues such as algorithmic bias, epistemic injustice in digital media, and the ethical and environmental challenges posed by AI. Moreover, students will be equipped to propose informed strategies to address these pressing issues.

Obiettivi inglese: By the end of the course, students will have a solid understanding of key concepts in analytic epistemology, including knowledge, justification, truth, reasons, and understanding. Applying these concepts within the context of digital technologies—particularly artificial intelligence—students will develop the ability to critically analyze phenomena with significant social and cultural implications. These include issues such as algorithmic bias, epistemic injustice in digital media, and the ethical and environmental challenges posed by AI. Moreover, students will be equipped to propose informed strategies to address these pressing issues.

6736 000 000 B5062 - 0 - Organizing in Cultural and Creative Industries (1) (LM)	SECS-P/10	ECON-08/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: At the end of the course, the student will be able to describe the relevant organizational issues for organizations within cultural and creative industries (CCIs), specifically for those in the book publishing industry. They will be able to detail how the coexistence of an aesthetic logic and a market logic impact organizational choices at the level of structure and management of people. The course aims at developing students' ability to understand the specific social and cultural context in which these organizations operate, so as to prepare students to work in such complex and multifaceted institutions. In addition, the course promotes interaction between students, simulating what happens in a real workplace. For this reason, the course will be based on group work, which will be presented during classes.

Obiettivi inglese: At the end of the course, the student will be able to describe the relevant organizational issues for organizations within cultural and creative industries (CCIs), specifically for those in the book publishing industry. They will be able to detail how the coexistence of an aesthetic logic and a market logic impact organizational choices at the level of structure and management of people. The course aims at developing students' ability to understand the specific social and cultural context in which these organizations operate, so as to prepare students to work in such complex and multifaceted institutions. In addition, the course promotes interaction between students, simulating what happens in a real workplace. For this reason, the course will be based on group work, which will be presented during classes.

6736 000 000 B1874 - 0 - Project Management and Software Engineering for Cultural Heritage (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: The course aims to provide basic knowledge about project management and software engineering applied to Digital Humanities (DH). Students will identify effective project management practices and their related processes. They will learn to apply the generally recognized practices to successfully manage DH projects. Through experimentation on real case studies, students will learn to design and manage a typical DH software process step by step. At the same time, the course introduces the concepts and methods required for the construction of systems applied to the Humanities. It aims to develop a basic understanding of the discipline of software engineering through the direct application of related design patterns and best practices adapted to the DH domain. Upon successful completion of this course, students will be able to: identify the key processes and requirements of both disciplines; initiate a software project; plan for time and cost; plan for project risks, and change control.

Obiettivi inglese: The course aims to provide basic knowledge about project management and software engineering applied to Digital Humanities (DH). Students will identify effective project management practices and their related processes. They will learn to apply the generally recognized practices to successfully manage DH projects. Through experimentation on real case studies, students will learn to design and manage a typical DH software process step by step. At the same time, the course introduces the concepts and methods required for the construction of systems applied to the Humanities. It aims to develop a basic understanding of the discipline of software engineering through the direct application of related design patterns and best practices adapted to the DH domain. Upon successful completion of this course, students will be able to: identify the key processes and requirements of both disciplines; initiate a software project; plan for time and cost; plan for project risks, and change control.

6736 000 000 85575 - 0 - SEMANTIC DIGITAL LIBRARIES (1) (LM)	M-STO/08	HIST-04/C	6	30/0/0/0	No	Voto
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Ambito:

Obiettivi: Libraries have always been an inspiration for the standards and technologies developed by semantic web activities. At the end of the course the students will learn how to manage the process related to a DL creation: from the metadata choice to the ontologies selection; from the network issues to the architecture implementation; from the preservation of data to the curation of the life cycle of digital cultural objects.

Obiettivi inglese: Libraries have always been an inspiration for the standards and technologies developed by semantic web activities. At the end of the course the students will learn how to manage the process related to a DL creation: from the metadata choice to the ontologies selection; from the network issues to the architecture implementation; from the preservation of data to the curation of the life cycle of digital cultural objects.

Gruppo: 3.ONE ACTIVITY TO BE CHOSEN AMONG:**TAF: F Ambito: 1147 - Altre conoscenze utili per****Cfu min: 6 Cfu max: 6**

Note:

Attività formativa	TIP	SSD	SSD 2024	TAF	CFU	ORE F/E/L/N	FREQ. VER.
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6736 000 000 85577 - 0 - INTERNSHIP (1) (LM)	6	0/0/150/0	No	Giudizio
<p>Ambito: Obiettivi: The internship is a period of training in direct contact with companies, institutions or organizations, aimed at facilitating professional choices and employability of young people in the transition between school and work.</p> <p>Obiettivi inglese: The internship is a period of training in direct contact with companies, institutions or organizations, aimed at facilitating professional choices and employability of young people in the transition between school and work.</p>				
6736 000 000 85579 - 0 - LABORATORY (1) (LM)	6	0/0/30/0	No	Giudizio
<p>Ambito: Obiettivi: The laboratory is designed to train students on some practical aspects. The activity is designed to allow students to apply specialized techniques in the management of disciplinary contents. The laboratories will deal with the themes related to one or more the areas of learning: computer science; literary, linguistic, historical/cultural and related to the arts in the digital context; transversal: economics, law and communication.</p> <p>Obiettivi inglese: The laboratory is designed to train students on some practical aspects. The activity is designed to allow students to apply specialized techniques in the management of disciplinary contents. The laboratories will deal with the themes related to one or more the areas of learning: computer science; literary, linguistic, historical/cultural and related to the arts in the digital context; transversal: economics, law and communication.</p>				
6736 000 000 85578 - 0 - SEMINARS (1) (LM)	6	30/0/0/0	No	Giudizio
<p>Ambito: Obiettivi: The seminars are designed to introduce students to some specialized aspects of the training. The seminars are related to the deepening of advanced topics, in particular taught by specialists or professionals of some disciplines of the learning activities. The seminars will deal with the themes connected with the areas of learning: computer science; literary, linguistic, historical/cultural and related to the arts in the digital context; transversal: economics, law and communication.</p> <p>Obiettivi inglese: The seminars are designed to introduce students to some specialized aspects of the training. The seminars are related to the deepening of advanced topics, in particular taught by specialists or professionals of some disciplines of the learning activities. The seminars will deal with the themes connected with the areas of learning: computer science; literary, linguistic, historical/cultural and related to the arts in the digital context; transversal: economics, law and communication.</p>				

Gruppo: 4.ELIGIBLE COURSES AMONG UNIBO TEACHINGS (12 CFU)**TAF: D Ambito: 1008 - A scelta dello studente****Cfu min: 12 Cfu max: 12**

Note:

Attività formativa	TIP	SSD	SSD 2024	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
a) Some suggested courses:					0-12			
6736 000 000 92909 - 0 - Arts Law in the Digital Age		IUS/10	GIUR-06/A		6	30/0/0/0	No	Voto
<p>Ambito: Obiettivi: Students acquire the fundamental notions regarding the evolution of European and national legislation of Arts Law. In particular, they gain the fundamental knowledge regarding either the protection and the enhancement of cultural heritage and the promotion of cultural activities, but are also brought to analyze and discuss the challenge that the idea of Arts and Culture pose for any regulation, especially in a democratic system. As an essential part of this course, students also know how the digital technologies, as the last stage of evolution, have impacted on our legal systems, and have transformed and can foster all the above mentioned policies for Culture and Arts</p> <p>Obiettivi inglese: Students acquire the fundamental notions regarding the evolution of European and national legislation of Arts Law. In particular, they gain the fundamental knowledge regarding either the protection and the enhancement of cultural heritage and the promotion of cultural activities, but are also brought to analyze and discuss the challenge that the idea of Arts and Culture pose for any regulation, especially in a democratic system. As an essential part of this course, students also know how the digital technologies, as the last stage of evolution, have impacted on our legal systems, and have transformed and can foster all the above mentioned policies for Culture and Arts</p>								

6736 000 000 92987 - 0 - BASIC ANALYTICS (1) (LM)	SECS-S/02	STAT-01/B	6	30/0/0/0	No	Voto
Ambito:						
Obiettivi: techniques concerning the analysis of data bases. In particular the student is expected to learn: - probability s tools - measures of variance - index numbers						
Obiettivi inglese: techniques concerning the analysis of data bases. In particular the student is expected to learn: - probability s tools - measures of variance - index numbers						
6736 000 000 B1659 - 0 - COPYRIGHT LAW (1) (LM)	IUS/04	GIUR-02/A	6	30/0/0/0	No	Voto
Ambito:						
Obiettivi: At the end of the course, the student knows the main legal principles - as well as the fundamental international and EU provisions - on copyright law and related rights, with specific regard to the exploitation of copyrighted works the digital environment.						
Obiettivi inglese: At the end of the course, the student knows the main legal principles - as well as the fundamental international and EU provisions - on copyright law and related rights, with specific regard to the exploitation of copyrighted works the digital environment.						
6736 000 000 98931 - 0 - Fundamentals of Artificial Intelligence (1) (LM)	ING-INF/05	IINF-05/A	6	30/0/0/0	No	Voto
Ambito:						
Obiettivi: At the end of the course, the student knows the main knowledge representation techniques and reasoning methods that underlie artificial intelligence problem solving. The student is able to develop simple solvers for artificial intelligence systems.						
Obiettivi inglese: At the end of the course, the student knows the main knowledge representation techniques and reasoning methods that underlie artificial intelligence problem solving. The student is able to develop simple solvers for artificial intelligence systems.						
6736 000 000 90051 - 0 - KNOWLEDGE EXCHANGE AND STORAGE BEFORE THE PRINTED BOOK (1) (LM)	L-ANT/03	STAN-01/B	6	30/0/0/0	No	Voto
D						
Ambito: 1008 - A scelta dello studente						
Obiettivi: At the end of the course students will have a critical understanding of the different systems of attainment, transfer and conservation of knowledge in ancient societies all over the world. Students will be able to analyze the methods and procedures of exchanging and archiving wisdom in different cultures and will be able to compare them in regard of their specific aims and their effectiveness in storing knowledge and information, with special attention to material aspects. Students will be able to undertake an informed review of recently established databases which aim at collecting data and texts of ancient authors and literary works, and to carve out new tendencies in the conception of modern storage systems on the basis of a widened perspective of classification of cultural memories. Students will acquire awareness of recent developments in Digital Papyrology and be able to manage and communicate interdisciplinary and intercultural connections, also considering different scientific approaches.						
Obiettivi inglese: At the end of the course students will have a critical understanding of the different systems of attainment, transfer and conservation of knowledge in ancient societies all over the world. Students will be able to analyze the methods and procedures of exchanging and archiving wisdom in different cultures and will be able to compare them in regard of their specific aims and their effectiveness in storing knowledge and information, with special attention to material aspects. Students will be able to undertake an informed review of recently established databases which aim at collecting data and texts of ancient authors and literary works, and to carve out new tendencies in the conception of modern storage systems on the basis of a widened perspective of classification of cultural memories. Students will acquire awareness of recent developments in Digital Papyrology and be able to manage and communicate interdisciplinary and intercultural connections, also considering different scientific approaches.						
6736 000 000 85573 - 0 - USABILITY AND USER EXPERIENCE (1) (LM)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto
C						
Ambito:						
Obiettivi: At the end of the course the student is able to design and evaluate software systems with respect to the dimensions of practicality, experience, affection, meaning and value that they may have on the target audience. Characteristics such as ease of use, usefulness and efficiency are fundamental for the positive evaluation of the user experience of the system. The student will be able to focus the functional analysis of the software on the characteristics and needs of the target audience, will be able to drive the development process so as to guarantee a constant connection between the technical and implementation features and the expectation of the audience, and will be able to evaluate whether and according to which metrics a software satisfies these expectations.						
Obiettivi inglese: At the end of the course the student is able to design and evaluate software systems with respect to the dimensions of practicality, experience, affection, meaning and value that they may have on the target audience. Characteristics such as ease of use, usefulness and efficiency are fundamental for the positive evaluation of the user experience of the system. The student will be able to focus the functional analysis of the software on the characteristics and needs of the target audience, will be able to drive the development process so as to guarantee a constant connection between the technical and implementation features and the expectation of the audience, and will be able to evaluate whether and according to which metrics a software satisfies these expectations.						

b) One activity to be chosen among:			6-6				
6736 000 000 84211 - 0 - DIGITAL HUMANITIES E PATRIMONIO CULTURALE (1) (LM)	M-STO/08	HIST-04/C	6	30/0/0/0	No	Voto	

Ambito:

Obiettivi: Il corso intende avviare allo studio delle digital humanities. Analizzando le principali teorie, metodologie e tecniche di dominio, lo studente impara a progettare risorse umanistiche digitali. Lo studio, in particolare, degli standard archivistici, bibliografici e museali, permette allo studente di apprendere, alla fine del corso, come produrre, conservare e disseminare collezioni culturali digitali in sistemi integrati.

Obiettivi inglese: The course aims to initiate to the digital humanities field. The analysis of the main theories, methodologies and techniques of the domain, is the strategy to acquire skills on digital project planning in the humanities. The study, in particular, of the standard models used in archives, libraries and museums allows students to learn how to produce, preserve and disseminate digital cultural collections in integrated environments.

6736 000 000 75969 - 0 - INFORMATICA DI BASE (1)	INF/01	INFO-01/A	6	30/0/0/0	No	Voto	
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Ambito:

Obiettivi: Al termine del corso, lo studente conosce i concetti teorici basilari dell'informatica, apprende i principi di funzionamento dei sistemi software illustrati e comprende il lessico tecnico base della disciplina. Acquisisce competenze applicative basilari sui problemi connessi a progettazione e produzione di sistemi multimediali in particolare in ambiente Web.

Obiettivi inglese: At the end of this course, the student will have a basic knowledge of computer science, having learned the working principles of software systems, and understanding the technical lexicon of the discipline. The student will also grasp the fundamental concepts about design and implementation of multimedia systems, especially in World Wide Web environment.

6736 000 000 B1714 - 0 - MODELLI NEURALI PER L'ELABORAZIONE DEL LINGUAGGIO NATURALE (1) (LM)	L-LIN/01	GLOT-01/A	6	30/0/0/0	No	Voto	
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Ambito:

Obiettivi: Al termine del corso lo studente conosce nel dettaglio i principali modelli di Deep Learning utilizzati per l'elaborazione del linguaggio naturale sia relativamente alla lingua scritta che alla lingua parlata. Conosce inoltre i principali framework tecnologici utili a sviluppare applicazioni computazionali.

Obiettivi inglese: At the end of the course the student know in detail the main Deep Learning models used for natural language processing both in relation to written and spoken language. She/He also know the main technological frameworks useful for developing computational applications.

Gruppo: 5.FINAL EXAMINATION**TAF: Ambito:****Cfu min: 18 Cfu max: 18**

Note:

Attività formativa	TIP	SSD	SSD 2024	TAF	CFU	ORE F/E/L/N	FREQ. VER.
A) Final examination (18 CFU)					0-18		
6736 000 000 75614 - 0 - FINAL TEST					18	0/0/450/0	No

Ambito: 1018 - Per la prova finale

Obiettivi: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.

Obiettivi inglese: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.

B) Final examination (6 CFU) with Internship (12 CFU)	0-18			
6736 000 000 86265 - 0 - FINAL TEST (6 CFU)	6	0/0/150/0	No	
Ambito: 1018 - Per la prova finale	E			
Obiettivi: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.				
Obiettivi inglese: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.				
6736 000 000 86267 - 0 - INTERNSHIP FOR PREPARATION FOR THE FINAL EXAMINATION (12 CFU)	12	0/0/300/0	No	Giudizio
Ambito: 1018 - Per la prova finale	E			
Obiettivi: At the end of the internship for preparation for the final examination the student has acquired competence and professionalism in relation to the internship project agreed with the supervisor, learning to independently manage assigned tasks and responsibilities.				
Obiettivi inglese: At the end of the internship for preparation for the final examination the student has acquired competence and professionalism in relation to the internship project agreed with the supervisor, learning to independently manage assigned tasks and responsibilities.				
C) Final examination (6 CFU) with Internship abroad (12 CFU)	0-18			
6736 000 000 86265 - 0 - FINAL TEST (6 CFU)	6	0/0/150/0	No	
Ambito: 1018 - Per la prova finale	E			
Obiettivi: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.				
Obiettivi inglese: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.				
6736 000 000 86261 - 0 - INTERNSHIP ABROAD FOR PREPARATION FOR THE FINAL EXAMINATION (LM)	12	0/0/300/0	No	Giudizio
Ambito: 1018 - Per la prova finale	E			
Obiettivi: At the end of the internship, the student acquires specific competences related to the integration in a productive, business or institutional reality, by concretely experiencing its work organization modalities. In addition, the student acquires specific competences related to the company's or institution's sector, in which he/she is doing the internship.				
Obiettivi inglese: At the end of the internship, the student acquires specific competences related to the integration in a productive, business or institutional reality, by concretely experiencing its work organization modalities. In addition, the student acquires specific competences related to the company's or institution's sector, in which he/she is doing the internship.				
D) Final examination (6 CFU) with Preparation for the final examination abroad (12 CFU)	0-18			
6736 000 000 86265 - 0 - FINAL TEST (6 CFU)	6	0/0/150/0	No	
Ambito: 1018 - Per la prova finale	E			
Obiettivi: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update acquired.				
Obiettivi inglese: Through the final dissertation students will engage with the knowledge, understanding and different research methodologies acquired during the programme. Moreover students will demonstrate capacity to plan, carry out and present in written and oral form - according to the statute of the discipline and to scientific and editorial rules - a research based contribution bearing on a significant problem, requiring handling of complex contents, critical approach to scientific literature, retrieval and coherent organisation of information. Students will show ability to identify and master the necessary sources and tools to update				

acquired.

6736 000 000 86266 - 0 - PREPARATION FOR THE FINAL EXAMINATION ABROAD (12 CFU)

12

0/0/300/0

No

Giudizio

Ambito: 1018 - Per la prova finale

E

Obiettivi: At the end of the activity abroad, the student is able to autonomously collect research material and to stay informed on his/her own. The student is able to independently organize and manage his/her work related to the final examination.

Obiettivi inglese: At the end of the activity abroad, the student is able to autonomously collect research material and to stay informed on his/her own. The student is able to independently organize and manage his/her work related to the final examination.

Legenda:

CFU: crediti formativi universitari

TAF: tipologia attività formativa (A-di base; B-caratterizzanti; C-affini o integrative; F-ulteriori attività formative; D-a scelta autonoma dello studente; S- stages e tirocini presso imprese, enti pubblici o privati, ordini professionali; E-per la prova finale)

SSD: settore scientifico disciplinare

F/E/L/N: indica le ore Frontali/Esercitazioni/Laboratori/Ore di esercitazione e/o laboratorio tenute da non docenti

Freq.: segnala l'esistenza di un obbligo di frequenza

Ver.: indica la modalità di verifica del profitto finale

TIP.: indica la tipologia delle forme didattiche. Queste possono essere CON: convenzionali, E-L: in e-learning, MIX: miste, C/E: convenzionali e/o e-learning. Il corso di studio può definire annualmente una delle modalità.