UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2019/20
BACHELOR
Science and Technology for Studying and Preserving the Cultural Heritage and Information Storage Media (Classe L-43)
enrolled from 2011/2012 academic year

HEADING

Degree classification - Denomination and code:	L-43 Conservation and restoration of culturale heritage
Degree title:	Dottore
Length of course:	3 years
Total number of credits required to complete programme:	180
Years of course currently available:	1st , 2nd , 3rd
Access procedures:	Open, subject to completion of self-assessment test prior to enrolment
Course code:	F8X

PERSONS/ROLES

Head of Study Programme

Prof. Luca Trombino

Tutors - Faculty

prof.ssa Silvia Bruni - Orientamento analisi e conservazione dei beni storico-artistici
prof. Andrea Zerboni - Orientamento analisi e conservazione dei beni culturali archeologici
prof. Goffredo Haus - Orientamento analisi, conservazione e restauro dell'informazione e dei supporti informativi
dott. Leonardo Gariboldi - Orientamento analisi e conservazione dei beni museali scientifico-tecnologici

Degree Course website

www.tecnobenicult.unimi.it

via Mangiagalli 34

via Celoria, 18 https://www.unimi.it/it/taxonomy/term/10

via Mangiagalli 34 (piano terra) stanza n. 26 martedì e giovedì 9.30-11.30 Email: sportello.beniculturali@unimi.it

www.unimi.it (scegli la Statale)

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

This bachelor program is devoted to train up scientific professionals specialized for Studying and Preserving the Cultural Heritage and Information Storage Media.

People who get this bachelor's degree have specific methodological, scientific, and technological knowledge needed for:

- evaluating the state of preservation of cultural heritage, its morphological-structural characteristics, and the properties of its constituting materials;
- the identification, risks' evaluation, diagnosis and rescuing actions for avoiding deterioration processes in cultural heritage with respect to archaeological sites, historical-artistic artifacts, museum collections, information storage media and related contents;
- restoring of information storage media and related contents;
- taking the scientific-technological leadership of institutions and professional organizations devoted to the preservation, management, and maintenance of cultural heritage, and also of private professional organizations devoted to conservative restoration and environmental rescuing;
- being able to exchange professional oral and written information in at least a couple of European languages (tipically italian and english);
- doing operative actions for the communication, preservation, fruition, and management of information concerning cultural heritage;
- working in the frame of a team, with a high level of autonomy, easily joining a working environment.

A robust basic scientific education is coupled to this specialistic qualification, so that students acquire fundamental scientific and professional methodologies.

Professional profile and employment opportunities

People who get the bachelor's degree in Science and Technology for Studying and Preserving the Cultural Heritage and Information Storage Media will conduct their professional activities for public and private institutions whose focus is on cultural heritage such as museums, libraries, archives, and also for professional companies working in the fields of archaelogical excavations, preservation and restoring of cultural heritage , information, and related storage media.
Specific roles and professional skills of people who get the bachelor's degree in Science and Technology for Studying and Preserving the Cultural Heritage and Information Storage Media, are only partially considered in the classification made by ISTAT, and particularly they are somewhat close to PROFESSIONI INTELLETTUALI, SCIENTIFICHE E DI ELEVATA SPECIALIZZAZIONE (2.5.4.5, 2.5.5.1.3); the main reason follows from the recent definition of new professional figures concerning Science and Technology for Studying and Preserving the Cultural Heritage and Information Storage Media.
This bachelor program is devoted to train up professional figures such as:
- experts in geoarchaelogy and archaeometry, skilled for the study, diagnosis, and preservation of archaelogical sites and artifacts, and also for supporting excavations' activities;
- experts in the application of analytical techniques for supporting historical-philological studies, characterizing materials and the causes of their degradation state, and defining needed rescuing actions;
- experts specialized in the exploitation of historical, scientific, technological, naturalistic cultural heritage: they will be able in understanding, diagnosis, preserving, managing, cataloguing, digitazing, exploitation, and cultural promotion;
- experts in the analysis of the preservation state, in the definition and application of the more efficient techniques for preserving, organizing, exploiting, and restoring of both information storage media (analogue and digital) and the related information contents.

Notes

In order to get their degree, students are required to certify their knowledge of the English language at the B1 level. This level can be certified in one of the following ways:
* by submitting their language certificate, taken no more than 3 years before its submittal and attesting a B1 o higher level (for the list of the language certificates which are accepted by the University of Milan, please refer to the website: http://www.unimi.it/studenti/100312.htm).
Students can submit their language certificate during the immatriculation procedure or send it to the Language Centre of the University of Milan (SLAM) via the Infostudente service.
* by sitting the placement test run by SLAM, during the first year exclusively, from September to December. Should they not pass the Placement Test, students will have to attend the English language course organized by SLAM. All students who do not have a valid language certificate must sit the Placement Test. Those students who do not sit the Placement test by December or do not pass the end of course test in one of the 6 attempts granted will have to get a language certificate outside the University of Milan within their degree.

EXPERIENCE OF STUDY ABROAD AS PART OF THE TRAINING PROGRAM

The University of Milan supports the international mobility of its students, offering them the opportunity to spend periods of study and training abroad, a unique opportunity to enrich their curriculum in an international context.

Study and internships abroad

Erasmus is a grant that finances the study abroad experience at a partner university, as part of bilateral agreements with selected universities and research centers in many foreign countries. When abroad, students attend courses, carry out research activities or do an internship.
In order to get these grants, students must contact a professor of this program who will scientifically supervise the exchange. Every topic related to this program is suitable. Two types of grants are available:
Erasmus+, for attending courses and carry out research activities (refer to the call in the Geological Sciences area).
Erasmus+ Traineeship, exclusively for internships.
For Erasmus+, see the call on the Geology area in the unimi.it website. Among other agreements, please have a look at the undergraduate and graduate courses offered by TEI, Technological Educational Institute, Atene (Grecia), who has a special agreement with this program.
The call for Erasmus+ Traineeship is published on the unimi.it website for all programs. In the recent past, Traneeship partners were: Cergy-Pontoise (France), Poitiers (France), Santiago de Compostela (Spain) and Ghent (Belgium). Anyway, new agreements with other universities or research centers can be signed if a professor of this program has some scientific collaboration with them. Apart from courses and exams, any activity carried out at the abroad institution is worth 3 credits (CFU) per month.
The "learning agreement" between professors at the home and abroad institution will define the activities the student will carry out. This document, together with the transcript of the exams and other research activities, will allow for the acknowledgment of such activities by this program.
To attend courses and take exams abroad has many advantages. In addition to being an unconventional experience in a student's life, it offers a big opportunity to practice in the local language. The students will also experience and compare different teaching systems, gaining more flexibility in their studying activities. Finally, the study abroad experience is in some cases a good opportunity to use facilities otherwise not available (for example, special equipment for experiments), work with large research groups on a cosmopolitan scale.

How to participate in Erasmus mobility programs

To gain access to mobility programs for study purposes, lasting 3-12 months, the enrolled students of the University of

Milan must attend a public selection that starts usually around the month of February each year through the presentation of specific competition announcements, which contain information on available destinations, respective duration of the mobility, requirements and deadlines for submitting the online application.

The selection, aimed at evaluating the proposed study abroad program of the candidate, knowledge of a foreign language, especially when this is a preferential requirement, and the motivations behind the request, is performed by specially constituted commissions.

Each year, before the expiry of the competition announcements, the University organises information sessions for the specific study course or groups of study courses, in order to illustrate to students the opportunities and participation rules.

To finance stays abroad under the Erasmus + program, the European Union assigns to the selected students a scholarship that - while not covering the full cost of living abroad - is a useful contribution for additional costs as travel costs or greater cost of living in the country of destination.

The monthly amount of the communitarian scholarship is established annually at national level; additional contributions may be provided to students with disabilities.

In order to enable students in economic disadvantaged conditions to participate in Erasmus+ program, the University of Milan assigns further additional contributions; amount of this contributions and criteria for assigning them are established from year to year.

The University of Milan promotes the linguistic preparation of students selected for mobility programs, organising every year intensive courses in the following languages: English, French, German and Spanish.

The University in order to facilitate the organisation of the stay abroad and to guide students in choosing their destination offers a specific support service.

More information in Italian are available on www.unimi.it > Studenti > Studiare all¿estero > Erasmus+

For assistance please contact:
Ufficio Mobilità internazionale e per la Promozione internazionale
via Festa del Perdono 7 (ground floor)
Tel. 02 503 13501-12589-13495-13502
E-mail: mobility.out@unimi.it
Desk opening hour: Monday-friday 9 - 12

1st COURSE YEAR Core/compulsory courses/activities common

Learning activity	Ects	Sector
ELEMENTS OF MINERALOGY AND PETROGRAPHY	6	GEO/06, GEO/07
English assessment B1 (3 ECTS)	3	L-LIN/12
GENERAL AND INORGANIC CHEMISTRY	6	CHIM/03
GENERAL COMPUTER SCIENCE	12	INF/01
GENERAL MATHEMATICS	6	MAT/09, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08
GENERAL PHYSICS	6	FIS/01
LAW FOR CULTURAL HERITAGE	6	IUS/10
METHODOLOGY OF THE ARCHAEOLOGICAL RESEARCH AND OF THE HISTORY OF ART	12	(6) L-ART/01, (6) L-ANT/10
PLANT BIOLOGY	6	BIO/02
PROBABILISTIC AND STATISTIC METHODS	6	SECS-S/01
Total compulsory credits	69	

2nd COURSE YEAR Core/compulsory courses/activities common

Learning activity	Ects	Sector
ANALYSIS METHODS FOR CULTURAL GOODS	9	FIS/07
ANALYTICAL CHEMISTRY	9	CHIM/12, CHIM/01
Cultural Heritage Microbiology	6	AGR/16
PALEONTOLOGY AND STRATIGRAPHIC GEOLOGY	6	GEO/02, GEO/01
RESTORATION OF CULTURAL HERITAGE	6	ICAR/19
Total compulsory credits	36	

3rd COURSE YEAR Core/compulsory courses/activities common

Learning activity		Ects	Sector
TRAINING		10	NA
	Total compulsory credits	10	

COURSE YEAR UNDEFINED Core/compulsory courses/activities common

Learning activity		Ects	Sector
STAGE		8	NA
	Total compulsory credits	8	

Further elective courses

ANTHROPOLOGY	6	BIO/08
ARCHAEOMETALLURGY	6	ING-IND/23
ARCHAEOZOOLOGY	9	BIO/05
ARCHIVAL STUDIES	6	M-STO/08
CHEMICAL AND PHYSICAL METHODS FOR THE CULTURAL GOODS CONSERVATION	9	CHIM/02
CHEMICO-PHYSICAL METHODS FOR CONSERVATION AND RESTORATION OF CULTURAL HERITAGE	9	CHIM/02
CHEMISTRY OF MATERIALS	6	CHIM/05, ING-IND/23
CONTEMPORARY MUSEOLOGY	6	ING-IND/23, L-ART/04
ELEMENTS OF OPTICS AND NUCLEAR PHYSICS	9	FIS/04, FIS/03
ENTOMOLOGY FOR CULTURAL GOODS	6	AGR/11
GEOARCHAEOLOGY AND QUATERNARY GEOLOGY	6	GEO/04
HISTORY OF TECHNOLOGY	9	FIS/08
Methods and languages for data management	6	INF/01
METODOLOGIES OF ARCHAEOLOGICAL RESEARCH	6	L-ANT/10
MULTIMEDIAL TECHA ORGANIZATION AND DIGITALIZATION	6	INF/01
NON-DESTRUCTIVE ANALYSES	6	ING-IND/23
ORGANIC CHEMISTRY	9	CHIM/06
X-RAY METHODOLOGIES FOR CULTURAL GOODS	6	FIS/04, FIS/03

End of course requirements

FINAL EXAM		6	NA
	Total compulsory credits	6	