UNIVERSITA' DEGLI STUDI DI MILANO
PROGRAMME DESCRIPTION - ACADEMIC YEAR 2018/19
BACHELOR
Biological Sciences (Classe L-13)
Enrolled from 2016/2017 academic year

HEADING	
Degree classification - Denomination and code:	L-13 Biology
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:	Cap on student, student selection based on entrance test
Course code:	F62

PERSONS/ROLES

Head of Study Programme

Prof. Mirko Baruscotti

Tutors - Faculty

Proff. Andrea Binelli, Martino Bolognesi, Alex Costa, Roberto Mantovani, Michele Mazzanti, Elena Menegola, Aldo Milzani, Anna Moroni, Andrea Mosca, Alessandra Moscatelli, Paola Sacerdote, Maria Antonietta Vanoni, Stefano Biffo.

Degree Course website

http://www.ccdbiol.unimi.it

Via Celoria, 20 Phone 199188128 verificare gli orari di apertura dello sportello sul sito: http://www.unimi.it/studenti/segreterie/773.htm E-mail: http://www.unimi.infostudente.it (previa registrazione)

via Celoria, 26 (2° piano torre A). Orari di apertura dello Sportello Didattica: dal lunedì al venerdì, dalle ore 10:00 alle 11:45. Sito web: http://www.ccdbiol.unimi.it Email: cl.biol@unimi.it

via Celoria, 26 (2° piano torre A). Orari di apertura: dal lunedì al venerdì, dalle ore 10:00 alle 11:45. Sito web: http://www.ccdbiol.unimi.it

http://www.unimi.it/studenti/matricole/77598.htm

CHARACTERISTICS OF DEGREE PROGRAMME

General and specific learning objectives

The bachelor programme in Biological Sciences (Class L-13 Biological Sciences) is designed to provide students with a sound basic knowledge of the main areas of Biological Sciences and a good mastery of methodologies and technologies related to the corresponding fields of scientific research, providing adequate preparation for assimilation of scientific and technological progresses and to know and properly treat living organisms.

Professional profile and employment opportunities

Graduates of Biological Sciences will be able to work in teams with different degrees of autonomy and to readily enter the working world, both in European and non-European countries. They will possess adequate knowledge to perform professional activities and apply techniques in private and public research centers, in pharmaceutical, agroalimentary, biotechnological, florovivaistic companies, in health and evironmental service centers, where they will be able:

- to classify, manage and use living organisms;
- to manage the relationship between development and quality of the environment;
- to assess environmental impact;
- to develop projects for the conservation and restoration of the environment and the biodiversity.

The degree in Biological Sciences affords admission to the Biologists' Professional Register (Section B, Junior Biologists), by passing the exam for the profession, to perform the activities recognized by the Italian law.

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

Students of Scienze Biologiche are given the opportunity to spend part of their curriculum abroad, at a University within the European Union (EU) in the frame of the Erasmus+ program of the European Commission. Students can attend courses and take exams that can be included in the core curriculum and/or perform laboratory stage (6 CFU of the free choice CFU) in several European Universities localized in Belgium, Netherland, Norway, UK, France, Germany, Poland, Spain and Portugal (see http://www.dbs.unimi.it/extfiles/unimidire/59401/attachment/elenco-degli-accordi-attivi.pdf). The admitted student will present a study plan including all the activities he/she intends to perform abroad, detailing the corresponding CFU: the number of proposed CFU should roughly correspond to those the student would achieve in the same time lapse remaining in his/her university. The study plan proposed by the student within the Erasmus+ program should be coherent with the Scienze Biologiche course and must be evaluated and approved by the Teaching Board. The Teaching Board, if necessary, will require the student to integrate the program of exams taken abroad. At the end of the Erasmus + program, according to the rules established by the Academic Senate, the approved exams will be recorded, possibly with the original denomination, as part of the student's curriculum upon conversion of the European Credit Transfer and Accumulation System (ECTS) into CFU.

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 Accordi e relazioni internazionali
via Festa del Perdono 7 (ground floor)
Tel. 02 503 13501-12589-13495-13502
Fax 02 503 13503
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**
CALCULUS	12	(3) SECS-S/02, (6) MAT/09, (6) MAT/01, (6) MAT/02, (6) MAT/03, (3) INF/01, (6) MAT/04, (6) MAT/05, (9) MAT/06, (6) MAT/07, (6) MAT/08

CYTOLOGY AND HISTOLOGY		9	BIO/06
ENGLISH		3	L-LIN/12
GENERAL CHEMISTRY WITH ELEMENTS OF PHYSICAL CHEMISTRY		6	(6) CHIM/03, (6) CHIM/02
ORGANIC CHEMISTRY AND CHEMISTRY LABORATORY		9	(3) CHIM/03, (9) CHIM/06
PHYSICS AND PHYSICS LABORATORY		9	(6) FIS/07, (3) FIS/06
PLANT BIOLOGY AND SYSTEMATICS		9	(9) BIO/02, (9) BIO/01
	Total compulsory credits	57	

2nd COURSE YEAR Core/compulsory courses/activities common

Learning activity		Ects	Sector
ANIMAL BIOLOGY AND SYSTEMATICS		9	BIO/05
BIOCHEMISTRY		9	BIO/10
BIOLOGICAL EVOLUTION AND HISTORY OF BIOLOGY		6	M-STO/05
COMPARATIVE ANATOMY		6	BIO/06
PLANT PHYSIOLOGY		9	BIO/04
	Total compulsory credits	39	

Elective courses

MOLECULAR BIOLOGY AND BIOINFORMATICS		12	BIO/11
MOLECULAR BIOLOGY AND BIOINFORMATICS		12	BIO/11
GENETICS		9	BIO/18
GENETICS		9	BIO/18

3rd COURSE YEAR Core/compulsory courses/activities common

Learning activity		Ects	Sector
DEVELOPMENTAL BIOLOGY		6	(6) BIO/06, (6) BIO/01
ECOLOGY		9	BIO/07
ELEMENTS OF HUMAN ANATOMY, PHARMACOLOGY AND IMMUNOLOGY		9	(9) MED/04, (9) BIO/16, (9) BIO/14
FINAL EXAM		3	ND
GENERAL MICROBIOLOGY		9	BIO/19
INTERNSHIP IN UNIVERSITY LABS		6	NA
	Total compulsory credits	42	

Elective courses

CLINICAL BIOCHEMISTRY		6	BIO/12
METHODS IN APPLIED ECOLOGY		6	BIO/07
METHODS IN APPLIED PLANT BIOLOGY		6	BIO/01
METHODS IN BIOCHEMISTRY		6	BIO/10
METHODS IN CYTOCHEMISTRY		6	BIO/16
METHODS IN CYTOGENETICS AND HUMAN GENETICS		6	BIO/18
METHODS IN EXPERIMENTAL EMBRIOLOGY		6	BIO/06
METHODS IN MOLECULARBIOLOGY		6	BIO/11
METHODS IN PHARMACOLOGY AND TOXICOLOGY		6	BIO/14
METHODS IN PLANT GENETICS AND BIOTECHNOLOGY		6	BIO/18
GENERAL PHYSIOLOGY AND ANIMAL PHYSIOLOGY		9	BIO/09
GENERAL PHYSIOLOGY AND ANIMAL PHYSIOLOGY		9	BIO/09