



UNIVERSITÀ
DI CAMERINO

School of ENVIRONMENTAL SCIENCE

First Level University Degree in **Geology, Environmental and Territory Science**

(Class L32 Environmental and Natural Science and Technology – L34 Geological Science)

University Degree Course Handbook

Degree program length: 3 years

Total credits to acquire: 180

Main teaching building:

City: **Camerino (MC)**

Address: **via Gentile III da Varano, snc**

Academic Year 2010-2011

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Website of school: <http://www.unicam.it/scuolascienzeambientali/>

Website degree course: <http://www.unicam.it/scuolascienzeambientali/offerta.asp>

2. *Course presentation*

The degree interclass Geology, Environment and Territories Science (class L-32 Science and technology for the environment and nature, and L-34 Geological Sciences) offers a new opportunity for those interested in environmental issues, particularly related to natural and geological disciplines. The new degree course aims to train a professional modern meets strong interdisciplinary cultural demands placed on those who work in the context of the analysis and management of the environment.

In the integrated view of the environment, it is clear, in fact, the need for a graduate with a preparation that includes both disciplines territorial geological-biological-environmental, which can plug directly into a work context related to knowledge and land management, to the prevention of risks due to incorrect use of natural resources, to the perspective of environmental sustainability and protection of biodiversity and geodiversity.

Recent investigations of ISFOL (1996-2006) confirm that the environmental sectors are areas of skilled employment, characterized by an upward shift of the qualification degree and the consequent rise in employment status.

The professional profile that emerges has the function of crossovers between disciplines geological and bio-natural and a systemic view of the environment. The interclass course aims to meet this growing demand for high flexibility and professional success will fit in a working environment with a strong interdisciplinary character.

The course is divided into a common first year, aimed at ensuring a solid preparation in basic subjects (mathematics, physics, chemistry and Geo-naturalist thematics); starting to the second year, while providing some common courses, begins to differentiate into two training courses referred to as **Geological Sciences (class L34)** and **Environmental and Territory Science (Class L32)**.

During the third year the paths differ further, allowing students to choose consciously to achieve the title of Degree in "Geological Sciences" (Class L-34) or in "Science and technology for the environment and nature" (Class L-32), depending on the interest for nature or geological disciplines.

During the enrolment of the first level degree, students must declare within the class is going to achieve the qualification; but the choose can be declared also at the moment the enrolment the second and third year.

To ensure a flexible and personalized study path, the course includes 12 credits for activities chosen by the student, as well as laboratory and field, internships, apprenticeships and/or other useful activities for entry into the labour market.

A graduate of interclass Degree in Geosciences, Environment and Territory will be suitably qualified to continue his studies with access to a wider range of **Master Degree** with geological, environmental and regional planning character, such as provided by UNICAM (LM-74 Geological Science and Technology; LM-75 Science and Technology for the environment and territory, LM-48 Urban and Environmental Planning).

Graduates can access the examinations for admission to the profession (geologist, biologist, and others).

3. *Objectives of the degree program and methods for verifying their achievement*

Compared to the educational objectives of the two classes above mentioned, besides to acquire the basic informations (chemistry, physics, mathematics), graduates will have a wide base of specific knowledges to be able to analyze, describe and understand the biological, geological, ecological, also on a regional scale and in a systemic cultural framework. Graduates will acquire basic knowledge in different fields of Earth Science and Biology for theoretical understanding, experimental and applied, so as to allow the continuous updating of knowledge, even in anticipation of the next levels of training.

The preparation, which aims the interclass training, is therefore focused on methodological and interdisciplinary basis knowledges, to avoid rapid obsolescence of skills without preventing direct access to employment (especially through professional activities).

The graduate will be ready to:

- 1- utilize metodological and technical instruments for geological, biological and ecological surveys, at the laboratory and in field (also aimed at evaluation processes and environmental monitoring);
- 2- represent and interpret the biological, ecological and geological components, systems and processes, by mapping tools even computer character;
- 3- use effectively, in written and spoken form, the English language within the competence and to exchange general information;
- 4- work in interdisciplinary teams, with levels of autonomy and to fit readily in the workplace.

For the achievement of specific objectives, the training includes a first phase of formation in the basic and transversal courses characteristic of both classes of degree (the latter, due to the different areas of Earth Sciences, Biology or Ecology) and, therefore, is independent of choose class of graduate.

The second phase is mainly oriented to the acquisition of methodologies and instruments to the geological and natural competences, with an additional share of credits given application aspect of the fundamental disciplines, and with competences related to the survey of the natural resources and the diversity, including the cartography and the GIS.

Regarding the common path, is possible to orient the profile, by appropriate combinations of other courses, towards a territorial and planning approach in bio-ecological and geological aspects, in relation to their professional associations. The articulation of curriculum and training activities shall focus on:

- interactive lessons and grouped (also common to other sectors), laboratory exercises and field activities, for a sufficient number of credits, especially dedicated to the acquisition of knowledge and experimental methods and techniques and skills required by professional reference;
- external activities, such as internships in companies, professionals, public administration structures and laboratories, as well as stays at other Italian and European Universities and Protected Areas also under international agreements.

4. Admission Requirements (D.M. 270/04)

To be admitted to Degree interclass (L-32/L-34) in "Geological sciences, Environment and Territory" of the University of Camerino, must possess a diploma of secondary school, or other qualifications obtained abroad and recognized as valid in Italy.

The knowledge that allow the student the successful attendance of the courses regard the areas of chemist, physicist and mathematic with bases of biology and physical geography.

To allow the students that starting to university studies in the best way, the Ministry of the University has established (Decree 270/04 Art. 6) that first established the preparation in relation to the degree course chosen. Therefore, all students are given the opportunity to conduct an entrance test verification of knowledge.

The verification does not in any way the registration and aren't those required for access to degree courses in "limited number". If the result of this test would suggest the need for some greater knowledge, UNICAM offers of specific activities called "Integration Courses".

The knowledge of English to achieve at the end of the course of study, is fixed at B1 level (Cambridge PET). Students with language certification of equal or higher level will be interviewed to obtain the related credits directly. In other cases the student must take a test that determines the input level and direct the student to pre-courses, or directly to the normal course of the interview.

For all information (date, methods of implementation, examples of tests conducted in previous years, any debits etc), please visit the web site of the University (<http://www.unicam.it>).

5. *Occupational opportunities (or professional)*

The degree in the Class **L-32 Science and Technologies for the Environment and Nature *l'ambiente e la natura*** is projected as a training moment for further study, but provides interesting job opportunities mainly in professional activities that include collaboration with local government and private institutions responsible for management and environmental protection and territorial planning and control (including CFS and the Regional Forestry Services), organizations and research laboratories, as public as private, companies and professional offices, parks and reserves, natural history museums and teaching centres.

Graduates can work in the perspective of sustainability and for environmental assessment and biodiversity conservation, performing operational tasks and professional support and collaboration in activities such as:

- detection, classification and analysis of biotic and abiotic components of ecosystems;
- thematic mapping with use of SIT and remote sensing;
- Analysis, monitoring and control components, systems and geo-environmental and ecological processes, including anthropogenic;
- location, diagnostics, protection and recovery systems and environmental goods, emergency services and biological resources;
- implementation of educational-didactic or nature-touristic paths, museums or exhibitions, training.

Graduates in the Class L-32 can enter the examination was to enroll at the Agricultural engineer and Agricultural engineer Graduates (after conducting six months of vocational training course or equivalent) and at the biologists Junior profession (sez. B).

In addition, the interclass course allows professional activities within the control environment (environmental control engineers), as touristic guides, or in teaching and training (tutors, instructors and teachers in training, technical teacher- Practical Environmental Education Centres and similar; Technical museums, etc.).

Graduates in the Class L-34 Geological Sciences will possess adequate knowledge to perform professional activities in various areas of employment, including: basic geological mapping, geological hazard detection, geological risk analysis, prevention and intervention at the emergency for safety; geological surveys and exploration of the subsoil; retrieval of geo-resources, including water resources; assessment and prevention of deterioration of cultural and environmental analysis and certification of geological materials; environmental impact assessment and strategic environmental; geodetic, topographic, oceanographic and atmospheric surveys; analysis and geotechnical laboratory testing.

These skills will be applied at: institutions and public research laboratories and private; entities responsible for protecting the environment and planning; professional geo-engineering or geo-environmental consulting company; government departments and regional parks and mountain communities; Body Forestry, natural history museums, laboratories of geomaterials; civil protection, the construction of public works and civil engineering. The scientific knowledge also enables graduates to gain access to wider areas of work of scientific / technological (technical and computer implemented environment mapping, environmental monitoring) and analysis or dissemination of scientific culture and cultural heritage, but also form part of the School teaching according to the current ministerial regulations.

Degree in L-34 provides access in the professional of Geologists (Section B) by passing the state examination for the profession (<http://www.geologi.it/>) as well the examination for the profession of industrial expert degree (section: mining), after conducting vocational training course or equivalent.

6. *Organization*

Before the start of courses under the degree program, all students have the opportunity to participate in the "days of acclimatization" that UNICAM organizes each year during the first days of October (see the website of the University: www.unicam.it).

The initiative serves to facilitate the integration of new students in the university and give them the tools to tackle university studies without problems and make the most of the services the University provides to each student.

The training activities (or teachings) of Degree in Geology, Environment and Territory Science, are divided along the arc of the three academic years, in six semesters.

The beginning of didactic activities is scheduled for October 4, 2010. Teaching is divided into two semesters in the following calendar:

1st Semester	october 4, 2010	-	January 28, 2011
2nd Semester	february 28, 2011	-	July 10, 2011

The timetable and an indication the classroom where the lesson will be conducted is available at the website: <http://www.unicam.it/studenti>.

Each teacher sets the beginning of the academic year a time of receipt, at least two hours a week, during which it is available to students for questions on the topics of the lectures.

The dates of the exam sessions, at least eight each academic year will be established by mid-October.

The arrangements for conducting the exam for each course must be notified well in advance by the teacher of the course; where this has not been done means that the test will only oral. The exams can include executing projects and seminars, to promote the degree of autonomy and independence of the student.

The student who intends to support an examination is required to register on-line (<https://didattica.unicam.it>) at the related education appeal.

The timing of appeals and teaching programs are available on the website dedicated to teaching UNICAM.

All activities that allow the acquisition of credits must be evaluated. The assessment is expressed by special committees chaired by the leaders of training activities. The lessons can be both single and integrated with a corresponding laboratory module. In the case of integrated teaching the exam is unique. These may also include ongoing testing and / or final projects.

Unless otherwise specified, the training activities are evaluated by a mark of thirty and, if possible, with praise. For granting credits to the activities of training period is necessary to examine the frequency and a report on the activities countersigned by the mentor teacher. The assessment may be expressed with only two grades: "idoneous" or "not idoneous".

The complete program of studies for the curriculum in Geological science (Degree in Class L34: Geological science) followed:

1st year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of evaluation (markg or idoneity)
MATHEMATIC	MAT/05	8	I		a	mark
PHISIC with ELEMENTS OF ATMOSPHERIC PHISIC	FIS/01	10	I e II		a	mark
GEOLOGY I	GEO/03	8	I		a	mark
BIOSPHERA EVOLUTION and PALEONTOLOGY	BIO/05	3	I	Evolution	c	mark
	GEO/01	4	II	Paleontology	a	
	BIO/02	3		Biosphera	c	
ENGLISH	L-LIN/12	6	II		e	mark
PHYSICAL GEOGRAPHY and CLIMATOLOGY	GEO/04	6	II		b	mark
CHEMISTRY	CHIM/01	9	II		a	mark

IInd year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of evaluation (markg or idoneity)
MINERALOGY	GEO/06	9	I		b	mark
SEDIMENTOLOGY and STRATIGRAPHY	GEO/02	5	I	Sedimentology	b	mark
	GEO/01	3		Stratigraphy	b	
GEOMORFOLOGY to the PLANNING	GEO/04	6	I	Geomorfology	b	mark
		3		Geomorfology to the planning	f	
FREE CHOICE ACTIVITY	NN	6	I		d	mark
GEOLOGY II	GEO/03	10	II		c	mark
TOPOGRAPHY, CARTOGRAPHY and GIS	ICAR/06	4	II	Topography	c	mark
	INF/01	4		GIS	a	
	GEO/03	3		Remote sensing and environmental Photogeology	c	
TERRESTRIAL PHYSISC	FIS/06	6	II		b	mark

IIIth year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of evaluation (markg or idoneity)
GEOCHEMISTRY and PETROGENESIS	GEO/08	6	I	Geochemistry	b	
	GEO/07	3		Petro-genesis	b	
TEMATIC GEOLOGICAL MAPPING	GEO/03	5	I	Geological mapping	c	mark
	GEO/07	3		Vulcanic mapping	b	
	GEO/02	3		Facies analysis	f	
	GEO/04	3		Geomorfological mapping	a	
TRAINING	NN	5	I		f	idoneity
FREE CHOICE ACTIVITY	NN	6	I		d	mark
MONITORING AND ENVIRONMENTAL LAWS	BIO/02	9	II	Geo-botanic	c	mark
	BIO/05	3		Monitoring	c	
APPLIED GEOLOGY and HYDROGEOLOGY	GEO/05	3	II	Applied geology	b	mark
	ICAR/07	3		Geotecnica	c	
	GEO/05	5		Hydrogeology	b	
FINAL EXAM	PROFIN _S	3	II		e	mark
		4			f	
Totale CFU*		180				

*** Legend:**

CFU: is the abbreviation "Credito Formativo Universitario" (credit hour). It measures the workload required of the student, usually with 1 CFU equivalent to 25 hours of work (this can be personal study or attendance at lessons or laboratories)

Modules: some activities can be divided into modules, which may be taught by different professors, but the activity has one final examination.

Type of activity:

- A.** basic
- B.** characteristic of the program of study chosen
- C.** related or supplementary
- D.** electives
- E.** for the final examination and for knowledge of a foreign language
- F.** other (additional language knowledge, computer science and relational skills, internship, etc.)
- G.** aggregate for apprenticeship credits

1. The courses are intensive and performance into account the needs of prerequisites.
2. Beyond required courses, students will be able to choose optional activities, according to their specific interests in some subjects within the Earth Sciences and can make individual study plans, using the credits available to the autonomous choices of students, Stage and of the final degree (total 24 CFU). The different curricular in the degree of the Class L-34 will allow students not only to deepen their interest in Earth Sciences, also allow for cross-curricular activities (in bio-natural thematic or in planning) or in areas more purely geological-applicative. The student can choose optional activities including those offered each year by degree course and may counsel with the teachers or the head of mentoring on the choice of the course to follow. listed below are, for example, some curriculum suggestions:
 - a) **cartography to the geological planning**; thematic cartography and **GIS** (Geographical Informative System); analysis and studies in geo-archaeology and in architecture of landscape;
 - b) processes of **physical landscape modeling**, monitoring and definition of **natural hazard** (hydrogeological hazard: landslides, floods, fluvial or marine and coastal dynamic and erosion);
 - c) analysis and monitoring of **seismic and volcanic events**; geological activity for **civil protection**;
 - d) retrieval and evaluation of **georesources**; with particular attention to water, petroleum and natural gas;
 - d) study of geomaterials and their application in environmental and techno-industrial field and in cultural heritages.
3. All activities that allow the acquisition of credits must be evaluated by special committees chaired by the leaders of training activities. The assessment tests can be conducted in writing and / or oral, or other processes suitable for particular types of activity. In particular, the periods between the first and second semester, and between the end of the beginning of next academic year, allow inspections aimed allocation of credits (exams). For granting loans to internship activities (or other) by the responsible course of study, is necessary to examine the frequency and a report on the activities countersigned by the teacher / speaker.
4. Some courses (mathematics, chemistry, physics, mineralogy, etc..) may make provision for "in itinere" learning. These checks will be proposed by the teacher of the course well in advance of the scheduled date for the same test. For the lessons divided into modules can be provided for assessment tests for profit at the end of each module.
5. Is strongly recommended the frequency of all field activities, laboratory, didactic excursions.
6. The training courses after which the title to access at UNICAM are: LM-74 Geological Science and Technology; LM-75 Science and technology for the environment and territory; LM-48 Urban and Environmental Planning.
7. The undergraduate degree provides a training period of approximately one month (5 credits, 150 hours) to provide a first contact with the world of work and facilitate the integration into the professional world. In particular internship activities will be conducted at public research institutions and laboratories and private parks and mountain communities, Professional or Consultancy, Technical Services and regional government, with which the University has concluded agreements.
8. The stage can also be used to begin the final activities elaborate, consisting of an experimental work (laboratory or field) whose results are presented final exam (final test).
9. Concerning final exam, graduates will develop a thematic form of a short thesis or report (in English), with data, drawings, technical reports and executive representation in a field of their training or inherent activities under the practical training. The results will be publicly presented to the Board of graduation using appropriate tools.

The complete program of studies for the curriculum in Sciences of Environment and Territory (Degree in Class L32: Science and Technology to the Environment and Nature) **followed:**

1st year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of

						evaluation (markg or idoneity)
MATHEMATIC	MAT/05	8	I		a	mark
FONDAMENTAL of PHYSIC	FIS/01	6	I		b	mark
FONDAMENTAL of GEOLOGY	GEO/03	8	I		b	mark
EVOLUTION of BIOSPHERE I	BIO/05	3	I	Genesis of life and phylogeny	b	mark
	BIO/02	3	II	Systematic Phylogeny of Cryptogams	b	
	GEO/01	4	II	Paleontology	b	
ENGLISH	L-LIN/12	6	II		e	mark
EVOLUTION of BIOSPHERE II	BIO/05	4	II	Animal Biology	c	mark
	BIO/01	4	II	Vegetal Biology	a	
PHYSICAL GEOGRAPHY and CARTOGRAPHY	GEO/04	6	II		a	mark
FONDAMENTAL of CHEMISTRY	CHIM/03	6	II		a	mark

II nd year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of evaluation (markg or idoneity)
MINERALOGY	GEO/06	6	I		b	mark
ENVIRONMENTAL GEOCHEMISTRY	GEO/08	6	I	Environmental Geochemistry	c	mark
	CHIM/06	3		Organic Chemistry	a	
BASIS OF THE LIFE	BIO09	3	I	Physiology	b	mark
	BIO/10	3		Biochemistry	b	
	BIO/18	3		Genetic	b	
CLIMATOLOGY	FIS/06	6	I		c	mark
FITOGEOGRAPHY	BIO/02	6	II		b	mark
PETROGENESIS	GEO/07	6	II		b	mark
BIODIVERSITY	BIO/05	3	II	Invertebrates	c	mark
	BIO/06	4		Laboratory of Systematic and phylogeny of vertebrates	c	
	BIO/05	3		Laboratory of animal biodiversity	f	
	BIO/02	4		Laboratory of Systematic of Seagrass	f	
FREE CHOICE ACTIVITY	NN	6			d	mark

III th year						
Teaching activity	SSD	CFU*	Sem.	Didactic unit*	Typology *	Typology of evaluation (markg or idoneity)
BASIS OF ECOLOGY	BIO/07	5	I	General Ecology	b	mark
	BIO/08	4		Human Ecology	c	
	MED/42	5		Environment and Healt	b	
ENVIRONMENTAL GEOLOGY	GEO/04	6	I	Geomorphology	a	mark
	GEO/04	3		Environmental Geology	f	
	GEO/05	6		Soil protection	c	
ENVIRONMENTAL MAPPING and GIS	INF/01	4	II	Informatic Territorial Systems	a	mark

	ICAR/06	4		Environmental mapping	c	
INTEGRATE NATURALISTIC SURVEY	GEO/03	3	II	Geological survey	b	mark
	BIO/03	3		Geobotanic survey	b	
	GEO/04	3		Geomorphological survey	b	
STAGE	NN	5	II		f	idoneity
FREE CHOICE ACTIVITY	NN	6	II		d	mark
FINAL EXAM	PROFIN_S	3	II		e	mark
Totale CFU*		180				

*** Legend:**

CFU: is the abbreviation "Credito Formativo Universitario" (credit hour). It measures the workload required of the student, usually with 1 CFU equivalent to 25 hours of work (this can be personal study or attendance at lessons or laboratories)

Modules: some activities can be divided into modules, which may be taught by different professors, but the activity has one final examination.

Type of activity:

- A. basic
- B. characteristic of the program of study chosen
- C. related or supplementary
- D. electives
- E. for the final examination and for knowledge of a foreign language
- F. other (additional language knowledge, computer science and relational skills, internship, etc.)
- G. aggregate for apprenticeship credits

1. The courses are intensive and performance into account the needs of prerequisites.
2. Beyond required courses, students will be able to choose optional activities, according to their specific interests in some subjects within the Natural Sciences, using the credits derived by free choice activity, Stage and of the final degree (total 24 CFU). This options, with the alternative learning activities, among those offered by the University, allow to propose a individual plan of study (though according to the teaching order and approval of the Board of studies). Thus, with the help of teachers or the head of mentoring, the student can follow a trail of different address, for example:
 - Biodiversity and animal and/or vegetal evolution;
 - Ecology and biology of population;
 - Applications (environmental restoring and renewable energies);
 - Territorial and Landscape Planning;
3. All activities that allow the acquisition of credits must be evaluated by special committees chaired by the leaders of training activities. The assessment tests can be conducted in writing and / or oral, or other processes suitable for particular types of activity. In particular, the periods between the first and second semester, and between the end of the beginning of next academic year, allow inspections aimed allocation of credits (exams). For granting loans to internship activities (or other) by the responsible course of study, is necessary to examine the frequency and a report on the activities countersigned by the teacher / speaker.
4. Some courses (mathematics, chemistry, physics, mineralogy, etc..) may make provision for "in itinere" learning. These checks will be proposed by the teacher of the course well in advance of the scheduled date for the same test. For the lessons divided into modules can be provided for assessment tests for profit at the end of each module.
5. Is strongly recommended the frequency of all field activities, laboratory, didactic excursions.
6. The training courses after which the title to access at UNICAM are: LM-74 Geological Science and Technology; LM-75 Science and technology for the environment and territory; LM-48 Urban and Environmental Planning.
7. The collaboration of structures of the University (Natural Reserve " Mountain Torricchio", Museums, Botanical Gardens and Arboretum, Herbarium, Insectarium, Floristic Research Center at the Apennine Park of Gran Sasso and Monti della Laga), warrants further

development and qualification of skills and knowledge through activities directly related to the educational training (laboratory modules, exercises, educational excursions).

8. The undergraduate degree provides a training period of approximately one month (5 credits, 150 hours) to provide a first contact with the world of work and facilitate the integration into the professional world. In particular internship activities will be conducted at public research institutions and laboratories and private parks and mountain communities, Professional or Consultancy, Technical Services and regional government, with which the University has concluded agreements. Stage can also be carried out at laboratories or facilities UNICAM (such as Nature Reserve "Mountain Torricchio" Museums, Botanical Gardens and Arboretum, Central Apennines floristic Park at the Gran Sasso and Monti della Laga) provided the choice is motivated and approved methods. The stage could be used for activities related to the elaborate final.
9. Concerning final exam, graduates will develop a thematic form of a short thesis or report (in English), with data, drawings, technical reports and executive representation in a field of their training or inherent activities under the practical training. The results will be publicly presented to the Board of graduation using appropriate tools.

10. ***Table of courses and professors***

Attachment A of this guide contains tables with detailed information on the courses for academic year 2010-2011 and the names of the professors responsible for these courses. These tables regard

- Students who **began their degree program in 2010 and are in their first year**
- Students who **began their degree program in 2009 and are in their second year**
- Students who **began their degree program in 2008 and are in their third year**

11. ***Curriculum vitae of the professors, syllabus information for individual courses, and academic facilities***

Professors publish their course description and syllabus on the university web site under the heading 'Offerta formativa'.

Here, students can also access the curriculum vitae of the professors and a description of the university's teaching and scientific facilities.

12. ***Academic support services***

• **Orientation**

Pre-University Orientation

As part of training, pre-university orientation provides secondary school students with methodologies and practical information for choosing the university course of study best suited to their goals and skills. For this purpose UNICAM offers:

- Guided visits to the University and Orientation Meetings in secondary schools in the Marche and other Regions
- UNICAM Internships
- Project Credits (educational projects for students in the last two years of secondary schools)
- Knowledge Travels (educational and informative seminars given by UNICAM lecturers at schools)
- Open Doors at UNICAM (orientation days for secondary school students)
- Open Doors in the University Schools (opportunities for future university students to acquire exhaustive information on teaching programs and on University services)

Postgraduate orientation

There is often a gap between the learning program at a university and the reality of the workplace the student needs to enter into. The orientation service offers students who are just graduating and postgraduate students, room for reflection on the choices of support activities for vocational training. This is done in collaboration with the Internship and Placement Service,

The event "Young People + University = Work" is of particular relevance here. This takes place each year, generally in the autumn. University students and new graduates are invited to attend the event to have an opportunity to listen to the accounts given by many different professionals, to meet and to establish direct contacts with company representatives, and to get to know experts from the world of work so they can start to plan out their own personal career path.

Class L32-L34 has triggered a series of initiatives for undergraduate and graduate students aimed at identifying strategies for achieving professional goals:

- by evaluating the reality and its economy employment of the professionals that are trained by the School;
- by checking the "added value" of the ongoing training and post-ongoing (stages and internationalization, skills acquired during undergraduate and postgraduate programs, mobility etc.).
- through verification and analysis of the elements exploitable operating mode (advanced value, contradictions to eliminate, ideas to be developed) and writing job descriptions of interest to the labor market;
- through participation in activities to provide students with skills (tools and methods of job search).

• **The Tutoring / Mentoring program**

Mentoring contributes to the cultural and professional training of the student, encouraging wider and more and active participation throughout the entire degree course.

The mentoring program has the following objectives:

- Assist the student in all aspects of their study
- Encourage different ways of participating in the training process
- Remove barriers to education through initiatives tailored to the needs, aptitudes and requirements of each individual student.

UNICAM's Mentoring Program provides specialised tutoring activities for both groups and individuals.

It organises a flexible range of teaching tutorials during the teaching year, conducted by tutors who have been chosen for their particular profiles, aimed at activities for students who work and for the different teaching approaches required for e-learning.

- **Group Tutoring:** provides scheduled meetings with the course teachers, designed to highlight and resolve, through input also from the students, any problems encountered in the teaching course.
- **Individual Tutoring:** UNICAM assigns to each student a 'teaching tutor' whose task is to follow and advise the student throughout their course of study. This is done through regular meetings and through meetings requested by the student.
- **Teaching Tutoring:** provides Bridging Courses covering the basic scientific disciplines (mathematics, chemistry and physics) and English. Should serious difficulties be encountered in learning activities, tutoring provides groups with recovery support.

Other Events:

- **Acclimatisation Days** for incoming students
- **Appointments with the Tutors** (seminars and workshops for university students on general topics given by experts). The meetings are held periodically during the academic year.

The interclass organizes orientation activities for students of final year degree course who wish to pursue studies or occupational integration.

• **The opportunity to study abroad**

UNICAM offers many possibilities for international mobility:

ERASMUS for study

The program allows the student to spend a period of study abroad (from 3 to 12 months), providing the opportunity to take courses, to take advantage of university facilities, to conduct research aimed at drafting their degree thesis, and to obtain recognition of exams taken abroad, provided they have been pre-designated within an appropriate study program.

Students who are interested can take part in the annual call from the University published in the period December - February.

Erasmus Student Placement (internship)

Starting in the 2007/2008 academic year, it is possible within the Erasmus program to hold internships (from 3 to 12 months) in enterprises, in research centres, and in European training centres, ensuring a recognition of curricular activities carried out abroad, provided there is agreement in advance with their respective Erasmus coordinators.

The degree program strongly encourages students to go abroad under the Erasmus projects or other international initiatives at the locations linked by specific cultural and scientific agreements (France, Germany, Greece, England, Holland, Poland, Czech Republic, Romania, Scotland, Spain, Hungary ...).

The contact class is available to verify the efficacy of periods abroad for students, undergraduates and graduates. The interclass organizes information days dedicated to mentoring within the group.

The activities carried out by the student under international agreements are recognized in accordance with the approved by the Board of interclass matches for each type, particularly by encouraging innovative activities, internships and specific preparation of the thesis.

The interclass attaches particular value to international efforts, also giving additional points to students who take part at the time of final assessment.

• Internships

The connection between the university and the workplace is one of the priorities at UNICAM. UNICAM organises meetings and dialogues amongst students, graduates, professionals and companies. In this spirit, the internship is an important tool allowing students, both graduates and the recently graduated, to have experience in a real working environment, an opportunity to learn directly about working-life and the opportunity, in some cases, to develop a particular expertise.

The University of Camerino has agreements with more than 1800 companies, institutions, administrative and professional offices, where students, both undergraduate and graduate, may pursue their internships. An internship can be done both in Italy and abroad.

Services offered

- Management of a database (UNICAM Stage) through which internships are offered. These can be carried out in companies or in public and private agencies
- Activation of post-graduate internships in companies
- Insertion of the CVs of UNICAM graduates into the online database UNICAMJob
- Support activities during entry into the workplace
- Participation in the program 'Work Kit' ('Borsa Lavoro') (a net of online services and an open system for putting together inquiries and offers of work via the Internet: www.unicam.it/laureati/mondolavoro/index.asp)

The interclass shall the inclusion of students in internship programs, promoting the initiative of students and the assessment and recognition of similar activities, in companies, public or private laboratories, parks, museums, even abroad (as under international agreements, Erasmus, etc.) in order to promote vocational and practical experience in the workplace.

Stage can also be carried out at laboratories or facilities UNICAM (such as Nature Reserve "Mountain Torricchio" Museums, Botanical Gardens and Arboretum, Floristic Research Center at the Apennine Park of Gran Sasso and Monti della Laga) provided the choice is motivated and approved methods.

• Services for welcoming students with disabilities

The 'Welcome Service for Disabled Students' aims at providing students with disabilities equal opportunities for managing their studies and for the chance to live fully the college experience.

This objective is pursued through outreach activities, through technology and through staff specially dedicated to students, as well as by the removal of physical and cultural barriers standing in the way of learning and standing in the way of everyday life.

By contacting the Service Tutors, it is possible map out a training plan which taking into account the particular disability and individual goals, defines solutions and personalised participation.

Facilities and services:

- Technological aids and specialised teaching support
- Personalised examinations (for entry and for credits)
- Specialised tutoring
- Transport with accompanying person
- Location and delivery of library materials
- Tax reduction and exemption
- Housing suitably equipped and the possibility of economic assistance for accompanying person
 - Access to university facilities
- Psychological counselling
- Access to sports facilities of C.U.S. (University Sports Centre)
- Assistance in participating in the LLP/ Erasmus programme
- Internships and training courses aimed at work placement

13. Quality assurance system

The Degree program in Geology, Environment and Territory Science (L32-L34) is part of the System of Quality Assurance UNICAM Certificate **ISO 9001:2008** (issued by **AFAQ-France**, a French leader and one of the first entities of certification in the world). The System seeks in particular to guarantee students quality in services provided, through a rigorous analysis of the internal organizational processes and prompt removal of serious difficulties encountered or reported by students.



The System of Management for Quality also includes support services for students, such as orientation, tutoring, international mobility, internships and placement, and communication, which integrate and support the didactic activities in order to contribute to the complete formation of the student.

Allegato A

Information detail of the activities and teachers – Academic Year 2010-11

EDUCATIONAL ACTIVITIES OF 1st YEAR (for beginners in 2010-11)

Training Activity	Module	Disciplinary Scientific Sector (SSD) of activity	Semester	Tipology of activity (*)	CFU	hours lesson num.	hours exerc. num.	Hours laboratory num.	Surname teacher	Name Teacher	School of University
Mathematics		MAT/05	I	A	8.0	64			Teodori	Albarosa	
Chemistry		CHIM/03	II	a	9.0	56	24				
Physic with element of atmospheric physics		FIS/01	I,II	a	10.0	64	24		Simonucci	Stefano	Science and technology
Physic with element of atmospheric physics		FIS/01	I,II	a	10.0	64	24		Marchesoni	Fabio	Science and technology
Geology I		GEO/03	I	a	8.0	48	24				
Physical geography and Climatology		GEO/04	II	b	6.0	40	12		Bisci	Carlo	Environmental Science
Physical geography and Cartography		GEO/04	II	b	6.0	40	12		Bisci	Carlo	Environmental Science
Biosphere Evolution and Paleontology	Biosphere	BIO/02	II	c	3.0	24			Vallesi	Adriana	Environmental Science
Evolution of Biosphere and Paleontology	Evolution	BIO/05	I	c	3.0	24			Aleffi	Michele	Environmental Science
Evolution of Biosphere and Paleontology	Paleontology	GEO/01	II	a	4.0	32			Lori	Paola	
Evolution of Biosphere I	Genesis of life and phylogeny	BIO/05	I	b	3.0	16	12		Vallesi	Adriana	Environmental Science
Evolution of Biosphere I	Systematic Phylogeny of Cryptogams	BIO/02	II	b	3.0	16	12		Aleffi	Michele	Environmental Science
Evolution of Biosphere I	Paleontology	GEO/01	II	b	4.0	32			Lori	Paola	
Fundamental of physics		FIS/01	I	a	6.0	48					

Evolution of Biosphere II	Animal Biology	BIO/05	II	c	4.0	24	12		Vallesi	Adriana	
Evolution of Biosphere II	Vegetal Biology	BIO/01	II	a	4.0	24	12		Francalancia	Carlo	
Fondamental of geology		GEO/03	I	b	8.0	48	24				
Fondamental of Chemistry		CHIM/03	II	a	6.0	32	24				

ATTIVITA' FORMATIVE DEL II ANNO (per chi ha iniziato nel 2009-10)

Training Activity	Module	Disciplinary Scientific Sector (SSD) of activity	Semester	Typology of activity (*)	CFU	hours lesson num.	hours exerc. num.	Hours laboratory num.	Surname teacher	Name Teacher	School of University
Sedimentology and Stratigraphy	Sedimentology	GEO/02	I	b	5.0	40			Cantalamesa	Gino	Science and technology
Sedimentology and Stratigraphy	Stratigraphy	GEO/01	I	b	3.0	24			Di Celma	Clauio	Science and technology
Mineralogy		GEO/06	I	b	6.0	48					
Mineralogy		GEO/06	I	b	3.0	24					
Geomorphology		GEO/04	I	a	6.0	48			Materazzi	Marco	Environmental Science
Geology II		GEO/03	II	c	5.0	40					
Geology II		GEO/03	II	c	5.0	40					
Geochemistry and Petrogenesis	Geochemistry	GEO/08	II	b	6.0	48					
Geochemistry and Petrogenesis	Petrogenesis	GEO/07	II	a	6.0	48					
Terrestrial Physic		FIS/06	II	b	6.0	48					
Mineralogy		GEO/06	I	b	3.0	24					
Mineralogy		GEO/06	I	b	3.0	24					
Climatology		FIS/06	I	c	6.0	48					
Fitogeography		BIO/02	I	b	6.0	48					

Petrogenesis		GEO/07	II	b	6.0	48					
Environmental Geochemistry	Environmental Geochemistry	GEO/08	II	c	6.0	48					
Environmental Geochemistry	Organic Geochemistry	CHIM/06	II	a	3.0	24					
Biodiversity	Invertebrates	BIO/05	II	c	3.0	24			Luporini	Pierangelo	Environmental Science
Biodiversity	Laboratory of Systematic and phylogeny of vertebrates	BIO/06	II	c	4.0	32					
Biodiversity	Laboratory of animal biodiversity	BIO/05	II	f	3.0	24			Alimenti	Claudio	Environmental Science
Biodiversity	Laboratory of Systematic of Seagrass	BIO/02	II	f	3.0	24			Aleffi	Michele	Environmental Science
Basis of life	Physiology	BIO/09	I	b	3.0	24			Todini	Luca	Environmental Science
Basis of life	Comparative anatomy	BIO/06	I	b	3.0	24			Scocco	Paola	Environmental Science
Basis of life	Genetic	BIO/18	I	b	3.0	24			La Manna	Vincenzo	Environmental Science
English		L-LIN/12	II	e	6.0	60					

ATTIVITA' FORMATIVE A SCELTA DELLO STUDENTE

Training Activity	Module	Disciplinary Scientific Sector (SSD) of activity	Semester	CFU	hours lesson num.	hours exerc. num.	Hours laboratory num.	Surname teacher	Name Teacher	School of University
Embryology of domestic animals		VET/01	II	4.0	32			Scocco	Paola	Environmental Science
Chemical pollutant		CHIM/01		4.0	32			Passamonti	Paolo	Environmental Science
Reproduction of Vertebrates		VET/10		4.0	32			De Cosmo	Attilio	Environmental Science
Urban Ecology		BIO/07		4.0	32			Hruska	Krunica	Environmental Science
Ecology and management of extensive pastoral system	Ecology of pastoral system	BIO/03		3.0	24					
Ecology and management of extensive pastoral system	Digestive system physiology of herbivores, and animal welfare	VET/02		3.0	24			Malfatti	Alessandro	Environmental Science

Ecology and management of extensive pastoral system	Anatomy of digestive system of herbivores	VET/01		3.0	24			Scocco	Paola	Environmental Science
Ecology and management of extensive pastoral system	Principles of animal nutrition	AGR/18		3.0	24			Fantuz	Francesco	Environmental Science
Floristic		BIO/02		4.0	32			Conti	Fabio	Environmental Science
Genetic of population		AGR/17		4.0	32			Renieri	Carlo	Environmental Science
Algology and algal indicator		BIO/02		4.0	14	24		Torrisi	Maria Cristina	
Monitoring of vegetal diversity		BIO/03		4.0	32			Canullo	Roberto	Environmental Science
Monitoring of Parasites		VET/06		4.0	32					
Biomonitoring of air quality		BIO/03		4.0	32			Allegrini	Maria Cristina	
Bio-monitoring and ecotoxicology		BIO/07	II	4.0	32			La Terza	Antonietta	Environmental Science
Sociology of environment and territory		SPS/10		4.0	32			Giovagnoli	Marco	Environmental Science
Laws and professional deontology		GEO/05		4.0	32			Farabollini	Piero	Environmental Science
Environmental Immunology		VET 08		4.0	32			Beghelli	Daniela	Environmental Science
Element of molecular ecology		BIO/07	I	4.0	24	12		La Terza	Antonietta	Environmental Science

Legend:

* **Type of activity:**

- A. basic
- B. characteristic of the program of study chosen
- C. related or supplementary
- D. electives
- E. for the final examination and for knowledge of a foreign language
- F. other (additional language knowledge, computer science and relational skills, internship, etc.)
- G. aggregate for apprenticeship credits
- S - Training