

Facoltà di Scienze e Tecnologie – Università di Camerino
Corso di laurea Magistrale in Risorse e rischi geoambientali
Classe 86/S Scienze geologiche - a.a. 2007 - 2008

CURRICULUM: Geoenvironmental Resources and Risks

Postgraduate Course in Earth Sciences, in english

Course presentation

This 2-year long postgraduate level course concerns the prospecting, correct use, development and protection of valuable natural resources (water, geomaterials, petroleum), as well as the risks associated with processes such as flooding and general hydro-geological instability, identification and remediation of pollution in natural waters and soils, Earth geodynamics, volcanic activity and hazards, earthquake effects and seismic assessment.

The course is designed to provide to undergraduate students in Earth Sciences, Environmental Sciences and Engineering, an opportunity to undertake advanced studies in a multi-disciplinary field with important applications concerning modern society and the interactions between human population, environment and ecology. The course will also include classroom, laboratory and practical activities led both by the university staff and by experienced industry professionals.

Course objectives

The availability, management and protection of resources (surface and sub-surface water, petroleum, ore and industrial minerals) is becoming a primary objective for environmental planning and development. The environmentally-sustainable use of resources, the problems related to their exploitation, the effect of pollution (industrial, human and mining derived) on waters and soils, the search for petroleum and other geologically related energy sources (coal, geothermal fields) are major topics where the geologist are directly involved and are expected to give their contribution in the next future being able to cooperate with scientists from other areas (chemists, biologists, mathematicians...).

The studies of volcanic, hydro-geological and seismic phenomena has become fundamental for the applications of Geology to the siting of high-risk industrial plants and/or for defending society against natural disasters.

Geological data are essential to characterizing the mechanisms of volcanic eruptions, seismogenic faulting, and flooding, in order to monitor and evaluate the hazards associated with these phenomena as well as understanding the strategies for risk assessment, mitigation and management.

In this course, particular attention is given to apply modern methodologies for prospecting and exploitation of the georesources, monitoring and studying the georisks. Laboratory and field activity as well as techniques for data analysis and elaboration are also emphasized.

Employment prospects

Graduates of the course can expect to find employment in the following sectors: as private and corporate consultants on geo-environmental issues, in local and national government agencies, in research institutions, in civil defense and, in general, in private and public institutions concerned with problems involving geological risks and the use, conservation and remediation of resources.

Courses and Lectures

Lessons will be held from the beginning of October to the middle of June, divided into 2 semesters of 12 weeks, with a mid-term break for exams (February and July-September). Lessons will be in english.

The work related to the preparation of each course is quantified in Credits (CFU). The Italian

CFU system is integrated to the European Credit Transfer System (ECTS). One CFU corresponds to 25 hours of work that comprises both lesson time and individual study (typically 2 hrs of private study per 1 hr of lessons; ratios nearer 1:1 are used for laboratory or field courses).

All students are required to complete a research project which corresponds to approximately 6 months of independent research (36 out of 120 total credits), with the production of a thesis (in English or Italian) and oral presentation (in English or Italian) of the results in the final exam.

Table of activities

No.	Course	year	credits
1	Geomathematic	1	5
2	Complementary Physics	1	5
3	Applied Geomorphology	1	5
4	Geomaterials	1	5
5	Petroleum geology	1	5
6	Groundwater resources	1	5
7	Applied geophysics	1	5
8	Seismic hazards	2	5
9	Volcanic hazards	2	5
10	Hydro-geological hazards	2	5
11	Professional training	2	6
12	Optional courses and activities	1-2	28
13	Thesis	2	36

How to enroll

Degree courses

For non-European students, information on how to enroll at the University of Camerino is provided by the Italian Embassy/Consulate in your Country.

European students can apply for admission at the Registrars Office (Stegreteria Studenti) (on any working day between the hours of 10.00 and 12.00).

Tuition fees are the same for all courses and if the student completes all exams predicted in their course of study for a given academic year, the fee is 670 Euro per year (fee relative to 2006-7, taxes for 2007-8 are not available yet, fee includes regional education tax); failure to complete all required exams in a given academic year may result in a slight increase in tuition for subsequent years (see www.unicam.it for details).

Accommodation and refectories

The 4 University Dormitories, Mattei, D'Avack, Fazzini, Granelli, situated in Camerino, offer 694 beds in single and double rooms. In addition, students can be provided with accommodation in 42 apartments, for a total of 96 beds, inside the University Campus.

Campuses in Ascoli Piceno and Matelica, where the Faculties of Architecture and Veterinary Medicine are located, offer lodging with over 60 beds in apartments.

As far as catering services are concerned, students can have meals in the two refectories available in the main campus of Camerino. When the refectories are closed (holidays) students will be provided with food vouchers which allow them to have meals at private businesses in Camerino. In the other campuses, students can have meals at reduced prices, thanks to agreements with local businesses that provide meals (restaurants, pizzeria, etc).

Students Scholarships

Students enrolled at UNICAM can apply for scholarships and other financial aid (additional details at www.unicam.it).

Students travel and bus services

UNICAM offers students the possibility of traveling free by public transport (Bus - Bus card Unibus) within the university area. That is to say that no cost is charged within the city of Camerino and to and from other UNICAM campuses.

Reduced rates are also available for parking of private automobiles in public parking facilities.

Further information

UNICAM

Students services

International relations

via Gentile III da Varano

62032 Camerino MC Italy

tel. + 39 0737 402764/51

fax + 39 0737 402081

email: relazioni.internazionali@unicam.it

website: web.unicam.it/coursesinenglish/index.asp

Department of Earth Sciences

tel. +39 0737 402608

email: geologia@unicam.it