UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Earth and sea sciences
A.Y. 2019/2020
DEGREE COURSE IN GEOLOGY
- GEOLOGICAL SCIENCES -

Characteristics

Class of Bachelor's Degree (BSc) on Earth sciences (L-34)	3 YEARS	PALERMO	FREE ACCESS	2126

Educational objectives

The degree course complies with the indications (Syllabus) of the Board of Presidents of degree Courses in Geology: this guarantees the right level of homogeneity of the educational offer and favours the mobility of students of the Class.

The degree course in Geological Sciences provides a basic education in Earth Sciences capable of providing a valid support in field and laboratory operations and in reading and interpreting technical-scientific papers. This training, which is y open to subsequent refinements in higher-level courses (2nd cycle Degrees, Masters, PhD courses), may enable the graduate to integrate in the workplace and professional activities.

Specific objectives build skills in the field of Earth Sciences and in particular the acquisition of basic geological knowledge, research tools and methodologies in the geological, geomorphological, geochemical, mineralogical-petrographic, geophysical and geological-application fields, through activities in the laboratory and in the field.

The educational activity of the degree course in Geological Sciences includes:

- Lectures, theoretical and practical exercises, laboratory exercises, field exercises. An adequate number of credits is attributed for each of these activities.
- Seminars, group work, technical visits and internships at private or public outdoor facilities: institutions, laboratories, companies, studies, construction sites.
- Stays at other Italian and foreign universities, also under international agreements.

Professional opportunities

Profile:
Junior geologist
Functions:
The main functions can be schematically summarized as follows:
- support activities on site, i.e. technical consultancy applied to construction engineering (buildings, roads, railways, canals, tunnels, dams, etc.), and to territorial planning and environmental impact assessment;
- support for laboratory activities of analysis of geo-petrological materials
- collaboration in engineering and architecture offices relating to the analysis of Territorial Information Systems.
Skills:
Junior geologists apply their knowledge of applied geology, technical geology, supported by basic knowledge of chemistry, physics, mineralogy, petrography, geochemistry, palaeontology and stratigraphy, sedimentology, hydrogeology, geophysics and geo-informatics for the rational use of land resources and protection, the procurement of renewable energy resources, the enhancement and protection of cultural heritage up to the assessment of geological risks in all environments.

Professional opportunities:
The trained professionals are technicians with competence and operational skills in the following sectors:
- companies, professional geotechnical and geo-diagnostic offices and firms;
- oil research institutes, research of water and geothermal resources, minerals and rocks of industrial interest;
- regional agencies for environmental protection and for finding sustainable energy sources;
- regional agencies for the prevention and mitigation of geological (volcanic, seismic, hydrogeological) and environmental (pollution, urban and industrial waste disposal) risks;
- regional agencies for the enhancement of cultural heritage, or for the management of naturalistic museums;
- ceramic, refractory, ornamental stone, cement, glass and gemmology industry;

Legenda: Per. = periodo o semestre, Val. = Valutazione (V=voto, G=giudizio), TAF= Tipologia Attività Formativa (A=base, B=caratterizzante, C=Affine, S=stages, D=a scelta, F=altre)

- laboratories for the analysis and certification of geological materials;
- Universities and public and private research institutions as qualified technicians

Final examination features

To be admitted to the final exam, Students must have acquired, at least 20 working days before the date fixed for the graduation session, all the credits (177 CFU) provided for by the Degree program with the exception of the credits assigned to the final test (3 CFU) that are acquired at the time of the test. To obtain the degree, students must have acquired all the credits (CFU) provided for by the educational regulations of the Degree Course (180 CFU) with the exception of the credits assigned by the CdS to the final exam (3 CFU), which are acquired at the time of the test. The final exam aims at verifying both the maturity level achieved by the student at the completion of the course and the specific professional preparation. The final exam consists of an interview. The topic of the interview is chosen by the student from a list prepared by the Degree Course with its own resolution and published at the start of the academic year on the course website. The choice of the topic will be simultaneous to the presentation of the degree application through the IT procedures foreseen by the Art. 2. Each of the proposed topics is accompanied by the name of a tutor-teacher. Based on the indicated bibliography, during the interview students will have to demonstrate to be able to analyse, deepen and critically re-elaborate the proposed topic. The final exam grade is expressed out of 30 with possible praise and minutes are drawn with the same procedures followed for the other exams. In the event of failure to pass the exam, the student can repeat the test to obtain the necessary credits for the achievement of the qualification.

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
16461 - GENERAL AND INORGANIC CHEMISTRY WITH ELEMENTS OF ENVIRONMENTAL CHEMISTRY - INTEGRATED COURSE	11	1	V		
- *ELEMENTS OF ENVIRONMENTAL CHEMISTRY* *Maccotta(RU)*	*3*	*1*		*CHIM/12*	*C*
- *GENERAL AND INORGANIC CHEMISTRY* *Casella(RU)*	*8*	*1*		*CHIM/03*	*A*
04872 - MATHEMATICS *Gambino(PA)*	9	1	V	MAT/07	A
11719 - PHYSICAL GEOGRAPHY *Rotigliano(PO)*	6	1	V	GEO/04	B
13351 - ADVANCED SKILLS RELATED TO THE LABOUR MARKET	2	1	G		F
19809 - GEO-INFORMATIC APPLICATIONS 1	1	1	G		F
19811 - IDENTIFICATION OF ROCKS	1	1	G		F
19810 - LABORATORY AND FIELD SAFETY	1	1	G		F
20692 - ENGLISH LANGUAGE SKILLS - EQUIVALENT TO LEVEL B1	6	1	G		E
19806 - MINERALOGY AND MINERALOGY LABORATORY - INTEGRATED COURSE	12	2	V		
- *MINERALOGY* *Merli(PA)*	*6*	*2*		*GEO/06*	*A*
- *MINERALOGY - STUDIO* *Sciascia(PA)*	*6*	*2*		*GEO/06*	*B*
08557 - PHYSICS *Iaria(PA)*	9	2	V	FIS/05	A
03043 - FIELD TRIPS - I YEAR	2	2	G		F

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
03694 - GEOMORPHOLOGY WITH LABORATORY *Di Maggio(PA)*	9	1	V	GEO/04	B
03596 - GEOPHYSICS *Martorana(PA)*	7	1	V	GEO/11	B
05509 - PALAEONTOLOGY WITH LABORATORY *Caruso(PO)*	10	1	V	GEO/01	B
19808 - GEO-INFORMATIC APPLICATIONS 2	1	1	G		F
18788 - GEOCHEMISTRY AND VOLCANOLOGY *Aiuppa(PO)*	9	2	V	GEO/08	B

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
05674 - PETROGRAPHY WITH LABORATORY *Rotolo(PO)*	10	2	V	GEO/07	B
17820 - STRATIGRAPHIC AND SEDIMENTARY GEOLOGY *Di Stefano(PO)*	9	2	V	GEO/02	A
03041 - FIELD TRIPS - II YEAR	2	2	G		F
Free subjects	6				D

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Subjects 3 ° year	CFU	Sem.	Val.	SSD	TAF
20600 - GEORESOURCES AND GEOMATERIALS *Montana(PA)*	6	1	V	GEO/09	C
11817 - GEOTECHNICS *Rosone(RD)*	6	1	V	ICAR/07	C
19294 - TECTONICS AND REGIONAL GEOLOGY *Sulli(PO)*	9	1	V	GEO/02	B
13121 - PRACTICE	6	1	G		F
19807 - SEMINARS HELD BY THE REGIONAL BOARD OF GEOLOGISTS	1	1	G		F
20599 - APPLIED GEOLOGY AND GIS LABORATORY - INTEGRATED COURSE	9	2	V		
- APPLIED GEOLOGY *Cappadonia(PA)*	*6*	*2*		*GEO/05*	*B*
- GIS LABORATORY *Rotigliano(PO)*	*3*	*2*		*INF/01*	*A*
06278 - GEOLOGICAL SURVEY - INTEGRATED COURSE	9	2	V		
- GEOLOGICAL SURVEY *Pepe(PA)*	*6*	*2*		*GEO/03*	*B*
- GEOLOGICAL SURVEYING FIELD *Pepe(PA)*	*3*	*2*		*GEO/03*	*C*
03042 - FIELD TRIPS - III YEAR	2	2	G		F
05917 - FINAL EXAMINATION	3	2	V		E
Free subjects II	6				D

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