

Main course information	
Academic subject	<b>Applied petrography (I.C.)</b>
Degree course	Natural Sciences
Degree class	LM
ECTS credits (CFU)	3
Compulsory attendance	Yes
Teaching language	Italian
Accademic Year	2019/2020

Professor/Lecturer	
Name & SURNAME	Francesca Micheletti
email	francesca.micheletti@uniba.it
Tel.	080-5442609
Tutorial time/day	Monday and Wednesday 12,30-14,30 or by appointment

Course details	Pass-fail exam/Exam with mark out of 30	SSD code	Type of class
	Exam with mark out of 30	GEO/07	Lecture/workshop

Teaching schedule	Year	Semester
	II	I

Lesson type	CFU/ECTS	Lessons (hours)	CFU/ECTS lab	Lab hours	CFU/ECTS tutorial/workshop	Tutorial/workshop hours	CFU/ECTS field trip	Field trip Hours
	2	16	0	0	1	15	0	0

Time management	Total hours	Teaching hours	Self-study hours
	75	31	44

Academic Calendar	First lesson	Final lesson
	First week of October 2019	Mid December 2019

Syllabus	
Course entry requirements	Fundamentals of mineralogy, petrography, geology
Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)	
<i>Knowledge and understanding</i>	Students will be guided by the teacher to analyze and understand the proposed themes. Much time will be devoted to clarifications that may be required to facilitate a real and profitable understanding.
<i>Applying knowledge and understanding</i>	Individual and group practical activities will often be administered to the students in order to test their ability to apply the acquired knowledge for the understanding of real cases.
<i>Making informed judgements and choices</i>	Students will be constantly encouraged to develop their own critical spirit in problem solving. A good knowledge of the topics covered will constitute the necessary starting point in order to develop an independent judgment.
<i>Communicating knowledge and understanding</i>	Students will be asked to acquire the scientific vocabulary suitable for the proposed subjects and for the analysis of the administered material (macroscopic and thin section rock samples)
<i>Capacities to continue learning</i>	Analysis of real cases present in our regional territory and practical and interactive activities of manipulation, observation and classification of the proposed materials will facilitate learning skills through direct experiences and comparisons.

Syllabus	
Course content	<p>Lectures</p> <p>Stone materials: commercial classification of magmatic, metamorphic and sedimentary rocks (UNI Norm).</p> <ul style="list-style-type: none"> <li>- Technical properties and main uses of lithoid materials. Examples of archeometry studies. Italian and foreign ornamental stones, illustration of the relative technical data sheets.</li> <li>- Mining activity in Puglia and possible environmental effects. Possible reuse of disused quarries (with notes on controlled landfills).</li> <li>- Rock degradation. Example of recovery intervention on Pietra leccese.</li> <li>- Elements of Colorimetry. Different uses of the colorimeter for color measurement.</li> </ul> <p>Workshop</p> <ul style="list-style-type: none"> <li>- Observation, recognition and classification (Standard UNI) of macroscopic samples (tiles) of the main commercialized ornamental stones.</li> <li>- Reading of thematic maps related to the regional territory.</li> <li>- The polarizing light petrographic microscope: characteristics and use.</li> <li>- Observations under the polarizing microscope of: <ul style="list-style-type: none"> <li>i) textures and fossiliferous content of the main Apulian “marbles” (carbonate sedimentary rocks), ii) textures of the main commercial “stones” (siliciclastic sedimentary rocks): recognition of the different types of quartz clasts, feldspars, micas, heavy minerals, lithic fragments, cement and matrix in a sandstone.</li> </ul> </li> <li>- Quantitative modal analysis (counts by points) in arenites: examples of recalculation of characterizing parameters.</li> <li>- Preparation of silicatic rock samples for FRX analysis for test chemical compositions. Examples of data processing.</li> <li>- Use of the portable colorimeter.</li> </ul>
Course books/Bibliography	Slides illustrated during the lessons. Reading of scientific articles.
Notes	The slides will be proposed in Italian. Articles in Italian or English.
Teaching methods	Lectures and exercises (observation of macroscopic samples of stone materials, observation of thin rock sections under a polarizing microscope, reading of thematic maps, group work)
Assessment methods (indicate at least the type written, oral, other)	Dissertation concerning the thematic areas of the program. Observation and classification of macroscopic rock samples. Administration of simple exercises similar to those performed during classroom exercises.
Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to do, and how many levels of achievement there are)	<p>In the evaluation of the exam the determination of the final grade will take into account the following elements:</p> <ul style="list-style-type: none"> <li>- mastery of the topics covered during the lessons</li> <li>- correct use of scientific language</li> <li>- ability to observe rock samples proposed for macroscopic analysis and commercial classification</li> <li>- ability to correlate the acquired knowledge with the characteristics of the regional territory</li> <li>- active participation in the lessons</li> </ul>
Further information	Possibility to download the slides illustrated during the lessons and the proposed scientific articles from the teacher's personal page