



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze della Terra e del Mare
ACADEMIC YEAR	2017/2018
MASTER'S DEGREE (MSC)	GEOLOGICAL SCIENCES AND TECHNOLOGIES
SUBJECT	SEDIMENTARY PETROGRAPHY
TYPE OF EDUCATIONAL ACTIVITY	C
AMBIT	21015-Attività formative affini o integrative
CODE	05676
SCIENTIFIC SECTOR(S)	GEO/07
HEAD PROFESSOR(S)	SCOPELLITI GIOVANNA Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	98
COURSE ACTIVITY (Hrs)	52
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	<b>SCOPELLITI GIOVANNA</b> Tuesday 15:00 16:00 Via Archirafi 36, II piano, stanza II-4

DOCENTE: Prof.ssa GIOVANNA SCOPELLITI

<b>PREREQUISITES</b>	Mineralogy
<b>LEARNING OUTCOMES</b>	<ul style="list-style-type: none"> <li>- Acquisition of the needed instruments to identify and classify a sedimentary rock. Ability to use a specific petrographic language.</li> <li>- Ability to reconstruct the genetic environment of a sedimentary rock starting from its macroscopic features.</li> <li>- Ability to evaluate the results obtained from a petrographic study in terms of implications related to the mineral constituents of the rock and its history.</li> <li>- Ability to explain the features of a rock and its petrogenetic environment also to non-experts.</li> <li>- Ability to connect in an overview the information obtained by the petrographic features of a sedimentary rock with the natural processes which it may have underwent.</li> </ul>
<b>ASSESSMENT METHODS</b>	<p>Oral exam concerning: 1) microscopic identification of one sedimentary rock; 2) discussion on the topics developed during the class by a minimum of two open questions aimed to verify: (i) the correct use of scientific-technical language; (ii) the ability to develop an autonomous and critical thinking; (iii) the conceptual connection among the different studied topics.</p> <p>The minimum requirements for passing the exam are: (i) identification of the rock; (ii) sufficient knowledge of the petrogenesis of the sedimentary rock and ability to link the studied topics.</p>
<b>EDUCATIONAL OBJECTIVES</b>	The aim of the course is to give students a wide overview of the sedimentary rocks very important for a geologist due the abundance of this kind of rocks on Earth surface. During the course will be supply the instruments to describe and classify a sedimentary rock and to reconstruct the petrogenetic environment. To this purpose will be illustrated the macro and micro textural features and the chemical-mineralogical aspects with the aim to define the main processes involved during their history.
<b>TEACHING METHODS</b>	Frontal lessons and laboratory activity finalized to the identification and description of the macro and microscopic textural features of the main sedimentary rocks aimed to the reconstruction of their genesis. On the base of the CdS economic resources a part of the laboratory hours will be carried out in the field, in the form of didactic excursions.
<b>SUGGESTED BIBLIOGRAPHY</b>	<p>Geologia del sedimentario - Tucker M.E. - Dario Flaccovio Editore, Palermo.</p> <p>Ulteriori testi:</p> <p>Rocce Sedimentarie - Tucker M.E. - Dario Flaccovio Editore, Palermo.</p> <p>Atlante delle rocce sedimentarie al Microscopio - Adams A.E., Mackenzie W.S., Guilford C. - Zanichelli, Bologna.</p> <p>Carbonate Sediments and Rocks Under the Microscope - Adams A.E., Mackenzie W.S. - Manson Publishing, London.</p>

## SYLLABUS

Hrs	Frontal teaching
5	Classification, composition and texture of the sedimentary rocks; the sedimentary environments.
5	Hints on the study methods and analytical approach.
4	Soils and residual rocks: chemical features of the formation environment and of the involved substances, classification.
6	Clastic rocks as instrument for palaeoenvironmental reconstructions and in the evaluation of the anthropogenic impact in recent sediments.
6	Organic rocks and oil-source rocks: characterization, petrogenesis and economic importance.
4	Organogenic rocks: diatomite, radiolarite, bioclastic arenite.
4	Chemical rocks: evaporite and travertine.
6	Stromatolite and condensed levels: composition and formation environments, bacterial mediation processes, linkage with study on the life out the Earth.
Hrs	Workshops
6	Textural features macro and microscopic of the main sedimentary rocks.
6	On the base of the CdS economic resources a part of the laboratory hours will be carried out in the field, in the form of didactic excursions.