DIPARTIMENTO DI SCIENZE

COURSE: Reservoir Modelling	
ACADEMIC YEAR: 2016/2017	
TYPE OF EDUCATIONAL ACTIVITY: Characterizing,	
TEACHER: Nadir Abylay	
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phone:	mobile (optional):
Language: English	

ECTS: 6 (4 ECTS: lessons; 2 ECTS: tutorials/practice)	n. of hours: 56 (32 hours: lessons; 24 hours: tutorials/practice)	Campus:Potenza Dept./School: Dept. of Sciences Program: Master in Geosciences and Georesources	Semester: First

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The objective of the course is to get familiar with the foundamentals of reservoir modeling, theoretical and practical techniques of reservoir modeling building. During this course input data acquisition and interpretation will be considered. Also, participants will acquire practical skills of work with Petrel software.

PRE-REQUIREMENTS

This course is dedicated for students who concerned with petroleum engineering and geosciences. Attendants are expected to be introduced with such courses as basics of petroleum engineering and geosciences

SYLLABUS

Lesson 1	Introduction to reservoir modeling
Lesson 2	Stochastic modeling
Lesson 3	Geostatistical reservoir modeling
Lesson 4	Common mistakes in reservoir modeling
Lesson 5	Introduction to Petrel
Lesson 6	Data acquisition
Lesson 7	Structural modeling
Lesson 8	Facies cells
Lesson 9	Porosity cells
Lesson 10	Permeability cells
Lesson 11	Saturation cells
Lesson 12	Estimation of reserves
Lesson 13	Uncertainties
Lesson 14	History matching
Lesson 15	Review of reservoir modeling course
	Final Field Case

TEACHING METHODS

- Theoretical lessons, - Classroom tutorials, - Project works.

EVALUATION METHODS

- Discussion of a project work, - Field cases and reports.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

1. Olivier Dubrule, AAPG, 1998. "Geostatistics in Petroleum Geology";
2. A. Robinson et. Al. Geological society, London 2002. “The Future of Geological Modeling”;
3. Jeffrey M. Yarus and Richard L. Chambers. AAPG, Oklahoma 1994. "Stochastic Modeling and Geostatistics";
4. Fundamentals of Petrel 2015 - Schlumberger;
5. Geology course on Petrel 2015 - Schlumberger;

INTERACTION WITH STUDENTS

First half of the course will be held via teleconference, while another part will be provided locally in Potenza.
EXAMINATION SESSIONS (FORECAST)[1] 16/03/2017; 13/04/2017; 11/05/2017; 22/06/2017; 20/07/2017; 14/09/2017; 12/10/2017
SEMINARS BY EXTERNAL EXPERTS YES □ NO X
FURTHER INFORMATION

[1]Subject to possible changes: check the web site of the Teacher or the Department/School for updates.