

Optional course – main information	
Academic subject	Global climate changes
ECTS credits (CFU)	4
Compulsory attendance	No
Teaching language	Italian
Accademic Year	2019/2020

Professor/Lecturer	
Name & SURNAME	Vincenzo De Santis
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Tutorial time/day	Monday 10-12, at the studio located on the II floor of the Earth Sciences building, University campus. By appointment.

Course details	Pass-fail exam/Exam with mark out of 30	SSD code	Type of class
	eligibility	GEO/04	Lecture/workshop

Teaching schedule	Semester	day and time (afternoon)	room
	II	Tuesday and Wednesday 15.30-17.30	To be defined

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
	4	32	0	0	0	0	0	0

Time management	Total hours	Teaching hours	Self-study hours
	32	32	168

Academic Calendar	First lesson	Final lesson

Syllabus	
Course entry requirements	Good knowledge of Geography and Geology; basic knowledge of Physics and Chemistry
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>	The student must know the paleoclimatic indicators and the archives where they can be found. He will have to know the dynamics of the earthly climate in the past, its causes and effects. He will have to understand the interactions between the many factors that contribute to determining the earth's climate and its variations. This knowledge will be acquired through lectures.
<i>Applying knowledge and understanding</i>	The student must be able to read the signals that nature sends concerning current climate change.
<i>Making informed judgements and choices</i>	The student must be able to understand the importance that government policy choices have on the production of greenhouse gases; he will also need to understand the importance of climate change mitigation policies on human life and the differences in the approach of governments to phenomena that occur as a result of climate change. The participatory discussion between students and between students and lecturer will be the useful teaching tool to develop these

Biblioteca di Entomologia e zoologia	BA018	E.7.24	57290084892	Disponibile solo per il prestito locale	Materiale in biblioteca
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Gore, Al

Una scomoda verità : come salvare la terra dal riscaldamento globale / Al Gore. - Milano : Rizzoli, 2006. - 333 p. : ill. ; 23 cm

Trad. di Marco Rossari. - ISBN 8817014451

Titolo uniforme: An inconvenient truth / Gore, Al

Biblioteca	Codice	Collocazione	Inventario	Prestito	Disponibilità
Biblioteca di Bioetica	BA085	D.VII.1030.fil	6099011932	Ammesso	Materiale in biblioteca
Biblioteca di Scienze geografiche [Economia]	BA026	363.73874GOR	GEO9011013	Disponibile solo per il prestito locale	Materiale in biblioteca

Slide provided by the teacher

Notes

Teaching methods Frontal lessons with the use of PowerPoint.

Assessment methods (indicate at least the type written, oral, other) Oral/eligibility

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)

Knowledge and understanding
The student will have to demonstrate to know all the contents of the teaching and in a special way: the dynamics of circulation in the troposphere, climate proxies and climate archives, the main climatic events of the past, the anthropogenic greenhouse effect.

Applying knowledge and understanding
The student must be able to:
1) describe the atmospheric circulation dynamics and the energy balance of the atmosphere;
2) describe the main proxies and climate archives;
3) read the oxygen isotopic curves and recognise the main climatic events of the past; describe them with their causes and effects;
4) to know the dynamics of the current global warming, the future projections on the climate and the scenarios of impact on human society.
The student must be able to describe the natural signals concerning current climate change.

Making informed judgements and choices
The student must be able to assess the impact that political decisions have on anthropogenic climate change; he must be able to consider pros and cons of the different systems currently studied for energy production with no emissions of greenhouse gases.

Communicating knowledge and understanding
The ability to express concepts and formulate interpretations with language properties and clarity will be assessed very positively. These skills, together with the previous ones, guarantee a very positive assessment of the student's preparation

	<p>and performance.</p> <p>Capacities to continue learning</p> <p>During the final examination, the student must show that he has acquired critical skills and that he is able to independently acquire new knowledge in order to solve or at least adequately discuss even complex problems posed by current climate changes.</p>
Further information	