



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche		
ACADEMIC YEAR	2022/2023		
BACHELOR'S DEGREE (BSC)	CHEMISTRY		
SUBJECT	HISTORY OF CHEMISTRY		
TYPE OF EDUCATIONAL ACTIVITY	D		
AMBIT	10527-A scelta dello studente		
CODE	06843		
SCIENTIFIC SECTOR(S)	CHIM/06		
HEAD PROFESSOR(S)	MAGGIO ANTONELLA	Professore Associato	Univ. di PALERMO
	MARIA		
OTHER PROFESSOR(S)			
CREDITS	6		
INDIVIDUAL STUDY (Hrs)	102		
COURSE ACTIVITY (Hrs)	48		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	MAGGIO ANTONELLA MARIA Monday 12:00 13:00 Studio del docente Viale delle Scienze edificio 17 - piano 0 - Studio 0/D28		

DOCENTE: Prof.ssa ANTONELLA MARIA MAGGIO

PREREQUISITES	Students should be interested in the formation and evolution of scientific thought. In addition he should be interested to understand the nature of science.
LEARNING OUTCOMES	Knowledge of the time and conceptual evolution of some fundamental concepts in Chemistry. To acquire logical and experimental processes on which is based the scientific process to investigate natural phenomena. The ability to apply these processes to any chemical item. The ability to clearly report facts and ideas in a written form. The ability to place what learned during this course in a larger evolution process, both scientific and social.
ASSESSMENT METHODS	Test with open (5) and multiple choice (25) questions. The Knowledge and understanding of the students are achieved with a multiple choice test (25 questions) The essay will be evaluated according to its fidelity to the question (0,2) completeness (0,2) and clarity (0,2), and to the student's ability to explain facts according to their time and conceptual development (0,2). An oral exam is optional at the discretion of the instructor or student if a further analysis is needed to check the student's skills. Only students who passed the written exam with 18/30 can ask to be admitted to the oral exam. In particular, if an oral exam is asked and performed, it becomes part of the evaluation together with the written part. Depending on the performance of the student, the final mark could be less, equal or greater than the total score of the written exam.
EDUCATIONAL OBJECTIVES	Understanding the nature of science. Ability to insert the arguments of the course into the broader field of Science evolution and to link them to social, political and economic development.
TEACHING METHODS	Lectures in the presence of the students (synchronous distance lessons, if necessary)
SUGGESTED BIBLIOGRAPHY	A. Maggio - R. Zingales, Appunti di Storia della Chimica, Aracne editore Da consultare: M. Giua, Storia della Chimica, Chiantore (TO), 1946 J.R. Partington, A Short History of Chemistry, Dover Publications (NY), 1957 J. Solov'ev, L'evoluzione del pensiero chimico dal '600 ai giorni nostri, Mondadori EST, 1976 H.W. Salzberg, From Caveman to Chemist, ACS, Washington, 1991 B. Bensaude-Vincent e I. Stengers, A History of Chemistry, Harvard University Press, (Cambridge), 1993 I. Asimov, Breve storia della Chimica, Zanichelli, 1994 C. Cobb e H. Goldwithe, Creations of fire, Plenum Press, New York, 1995 P. Rossi, Storia della Scienza Moderna e Contemporanea, TEA (MI) 2000 G. Villani, La chiave del mondo, CUEN, Citta' della Scienza (NA) 2001 G. Villani, Molecole, CUEN (NA) 2001

SYLLABUS

Hrs	Frontal teaching
6	The origins of Chemistry: protochemistry and Alchemy.
6	The composition of matter.
6	Instrumentation and the first quantitative determinations.
6	Pneumatic Chemistry till to Lavoisier.
6	Elements, atoms and molecules. Birth and evolution of the atomic-molecular theory.
6	The chemical language
6	Classification of the elements.
6	The discovery of the last elements between the end of XIX and the beginning of XX century.