UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze e Tecnologie Biologiche, Chimiche e Farmaceutiche
ACADEMIC YEAR	2022/2023
MASTER'S DEGREE (MSC)	BIODIVERSITY AND ENVIRONMENTAL BIOLOGY
SUBJECT	TPXICOLOGY OF BIOACTIVE MOLECULES
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50505-Discipline del settore biomedico
CODE	20653
SCIENTIFIC SECTOR(S)	BIO/14
HEAD PROFESSOR(S)	VENTURELLA FABIO Ricercatore Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	102
COURSE ACTIVITY (Hrs)	48
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	2
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	**VENTURELLA FABIO** Monday 11:00 13:00 Via archirafi numero 20 al quinto piano Wednesday 11:00 13:00 Via archirafi numero 20 al quinto piano

DOCENTE: Prof. FABIO VENTURELLA

PREREQUISITES	Knowledge of animal and vegetable biology, general chemistry, anatomy and hints of human physiology
LEARNING OUTCOMES	Knowledge and understanding: Morphological identification of toxic substances and description of their origin, chemical structures and mechanism of action-Applying knowledge and understanding:Know how to apply in therapy knowledge in the field of Toxicology, know how to evaluate the interactions between natural substances, foods and drugs synthetic. Making judgements: Being able to evaluate the answers to practical or theoretical problems mainly in the field of Toxicology also on the basis of limited or incomplete information. Communication skills: Ability' to communicate clearly and with appropriate language with interlocutors specialists and not. Be able to act as expert operators in the prevention and information in the field of Toxicology including on the basis of limited or incomplete information. Learning skills: Ability' to communicate clearly and with appropriate language with interlocutors specialists and not. Be able to act as expert operators in prevention and information in the field of Toxicology-Ability' of learning: Ability of updating with the consultation of scientific publications of the field BIO 14. Ability to participate, using the knowledge acquired, both in refresher courses and in specialized seminars in the field of Toxicology and modern phytotherapy
ASSESSMENT METHODS	The oral examination consists of an interview, able to valuate the possession of the skills and disciplinary knowledge provided by the course; the evaluation is expressed in thirtieths. The student will have to answer at least five or six questions on all parts of the program, with reference to the teaching material provided and any suggested texts.The maximum score is obtain whether the verification ascertains the full possession of a strong ability to expose with appropriate scientific language the contents of the course within the field of toxicology, demonstrating to have understood the mechanisms that are at the base of the toxic effect and the correct therapy. There shall be a minimum assessment if the candidate shows a poor preparation inspected his professional ambitions
EDUCATIONAL OBJECTIVES	The course aims to train the student by providing appropriate knowledge that will make him able to know how to evaluate the mechanisms, interactions and toxic effects of molecules of natural and synthetic origin. At the end of the course the student will have developed the ability' to communicate clearly and with appropriate language with interlocutors specialists and will be able to propose himself as a health care professional and expert in prevention and information in the field of Toxicology
TEACHING METHODS	Frontal Lessons
SUGGESTED BIBLIOGRAPHY	Casarett & Doull's 'Elementi di Tossicologia (Ambrosiana)-2013- ISBN : 9788808184078 Casarett and Doull's Toxicology: The Basic Science of Poisons-Klaassen,Curtis-2013 -ISBN: 9780071054768

SYLLABUS

Hrs	Frontal teaching
4	General Toxicology: Toxicokinetics and Toxicodynamics
16	Vegetable drugs and active principles on the Central Nervous System: Morphine,Cannabinoid,Cocaine,Caffeine,Synephrine,Ephedrine,Atropine,Scopolamine,Physostigmine,Curare,N Antidepressant and sedative plants-Strychnine,Cyanogenic Glycosides,Hemlock
4	Poisonous mushrooms
10	Animal toxins (poisons from snakes, spiders, scorpions, marine organisms)
10	Environmental Impact of Xenobiotics-Pesticides-Paraquat,Dioxin-Heavy Metals Toxicity-Occupational Diseases
4	Anamnesis-How to recognize the symptoms-Role of Toxicology Laboratory-NRBC Emergency