UNIVERSITÀ DI PAVIA

Anno Accademico 2019/2020

MOLECULAR METHODOLOGIES FOR BIODIVERSITY CONSERVATION

Enrollment year	2019/2020
Academic year	2019/2020
Regulations	DM270
Academic discipline	BIO/04 (PLANT PHYSIOLOGY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	EXPERIMENTAL AND APPLIED BIOLOGY
Curriculum	Biologia ambientale e biodiversità
Year of study	1°
Period	(01/10/2019 - 14/01/2020)
ECTS	6
Lesson hours	48 lesson hours
Language	
Activity type	ORAL TEST
Teacher	BALESTRAZZI ALMA (titolare) - 6 ECTS
Prerequisites	Basic knowledge in cellular and molecular biology is required.
Learning outcomes	This part of the course aims at highlighting some methodological aspects of molecular biology applied to plant biodiversity issues, particularly as concerns GMOs traceability.
Course contents	GMOs (genetically modified organisms): definition, hystory. New-generation GMOs. Environmental impact of transgenic plants. Transgene dispersal in soil and gene flow. Techniques for extraction and purification ot total DNA from soil, detection of recombinant DNA sequences by standar PCR (Polymerase Chain Reaction). Use of QRT-PCR (Quantitative RealTime-Polymerase Chain Reaction) for the detection and quantification of recombinant DNA in food and environment (GMOs traceability).

Teaching methods

Lectures.
Laboratory activities.

Reccomended or required readings

no text books are suggested but all the material will be provided by the teacher

Assessment methods

written exam

Further information

Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile