BREVE DESCRIZIONE DEL CORSO

Internal environment and external environment
Physiological responses to environmental variability.
Conformists and regulators
Homeostasis
Range of tolerance and resistance
Adaptation and acclimatization
Temperature limits for living organisms, adaptations to extreme temperatures
Heat exchanges between the organism and the external environment
Determinants of body heat
Endothermic and ectothermic organisms
Thermal homeostasis
Water exchanges between the organism and the external environment
Osmoregulation in aquatic environments.
Osmoregulation in terrestrial environments
Gas exchange between the organism and the environment
Respiration in aquatic and terrestrial environments
Principles of environmental toxicology: the organism physiological responses to chemical pollutants, detoxification mechanisms
Endocrine disruptors
Toxicity testing
Biomarkers and their application in environmental biomonitoring

PREREQUISITI

basic knowledge of general physiology

OBIETTIVI FORMATIVI

The objective of the course is to provide students the basic knowledge of the environmental physiology (physiological responses to the variability of the environmental factors), and to gain a sound background in the physiological responses of animals to environmental pollutants and in their application in the ecotoxicological monitoring.

METODI DIDATTICI


MODALITÀ D’ESAME
oral examination
Calendario attività didattiche: http://www.scienzemfn.unisalento.it/540

ALTRE INFORMAZIONI UTILI

PROGRAMMA ESTESO

TESTI DI RIFERIMENTO