

Suggested research topics

Winter semester of the academic year 2019/2020

Course name in Arabic: **فسيولوجيا الاحياء المائية**

Course name in English: **Aquatic physiology**

Professor Dr.: **Michel Fahmy Saad**

Level: **2nd year students**

Department: **Aquaculture**

No.	Research title	Research items
1	Differences between bony and cartilaginous fishes	1-Anatomy 2-Habitat 3-Respiration 4-Fertilization 5-Nutrition of embryos
2	Countercurrent (cc) mechanisms	1-cc heat exchanger in tuna 2-cc gas exchanger in tilapia 3-difference between shark and tilapia 4-significance of each
3	Functions of kidney in teleostei	1-excretory 2-hematopoietic 3-osmoregulatory 4-endocrine
4	Functions of gills	1-excretory 2-respiratory 3-osmoregulatory 4-gill raker
5	Hemolymph in shrimps	1-composition 2-respiratory function 3-immune function 4-role during molting
6	respiration in fish	1-characters of respiratory surfaces 2-obligatory ram ventilators sharks 3-factors affecting gas exchange 4-mechanism in catfish 5-functions of gas bladder
7	Differences between prawn and shrimp	1-habitat 2-gills 3-claws in legs 4-egg broodiness
8	Digestive enzymes site of secretion and functions	1-pepsin 2-trypsin 3-lipases 4-amylase 5-chitinase

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9	Hormones regulating	1-calcium level in mullet 2-osmoregulation in mullet 3-vitellogenesis 4-glucose level in carp 5-skin pigmentation in rays
10	Eyestalk ablation in shrimps	1-function 2-mechanisms 3-advantages 4-disadvantages
11	Obtaining carp fry for farming	1-oogenesis 2-oocyte maturation 3-ovulation 4-fertilization 5-development of embryo
12	Testes of carp	1-type 2-functions 3-function of Sertoli cells 4-function of Leydig cells
13	Induced spawning in tilapia	1-CPE 2-GnRh 3-HCG 4-Dopamine antagonists 5-aims of induced spawning
14	Osmoregulation in sharks	1-mechanism 2-why is it an exclusively marine? 3-function of rectal gland 4-role of cortisol
15	In female red cherry shrimp what's meant by	1-saddle 2-curved underbelly 3-undercarriage 4-berried

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