Suggested research topics

Winter semester of the academic year 2019/2020

Course name in Arabic: التحليل الميكروبيولوجى للمياة ومياة الصرف
Course name in English: Microbiological analysis of water and waste water
Dr.:Fatma Ali Abouelenien **Dr : Nagham Rafeek Ibrahim Elsaidy**
Level: Two
Department: Department of Fish Processing and Biotechnology

No.	Research title	Research items
1	**Self-purification of water bodies**	1-Definition 2-Mechanisms 3-benifits
2	**Point and non-point water pollution**	1-definition 2-sources 3-diffrence
3	**Organic and inorganic water pollution**	1- definition 2-sources 3-diffrence
4	**Eutrophication**	1- definition 2-causes 3-effects 4-how to treat
5	**Importance of protozoa in water and wastewater treatment**	1- The most important types 2- The role of protozoa 3-Mechanisms shared by protozoa
6	**Bioaccumulation of water pollutants**	1-defention 2-mechanisms 3-effect on environment and fish
7	**Waste water treatment**	1-difinition 2-aim 3-mechanism shared 4-steps
8	**Biological treatment of waste water**	1--definition 2-aim 3-mechanism shared 4-steps

Course Instructor:

Name: Fatma Abouelenien

No.	Research title	Research items
9	**Waste water as a water branch**	1- What does wastewater mean? 2- What does wastewater contain? 3- Where do we waste water? 4- What are the types of waste water? 5- What are the properties of waste water?
10	**Water microbes of sanitary importance**	1- Viruses 2- Bacteria. 3- Helminths 4- Protozoa 5- Indicator organisms.
11	**Human pathogenic viruses in the marine environment**	1- Sources. 2- Fate of viruses in marine water. 3- Route of viruses' infection for human. 4- Diseases caused by viruses' infection for human. 5- Control of human pathogenic viruses .
12	**Waste water as an ecological threaten**	1- Ecological impacts 2- Air hygiene impacts 3- Water hygiene impacts 4- Soil impacts 5- Aquaculture impacts
13	**Drinking water treatment plants**	1- Benefits of drinking water treatment 2- Drinking water treatment processes 3- Differences between drinking water and waste water treatments plants 4- Diagrammatic illustration of drinking water treatment plants 5- Judgment on the efficiency of drinking water treatment processes.
14	**Water quality as a key for successful fish farming**	1- Water sources for aquaculture 2- Good water quality for fish 3- Maintaining water quality for fish. 4- Poor water quality impacts on fish 5- Water quality guidelines for fish farming
15	**Human bacterial water borne diseases**	1- Types 2- Sources of bacterial infection 3- Route of bacterial infection for human 4- Diseases caused by bacterial infection for human 5- Control of human bacterial infection via water pollution

Course Instructor:

Name: Nagham rafeek Ibrahim Elsaidy