**Parasitology (B) (PAR. 325)**

**Overall aims of the Course:**

1. Understanding the importance of arthropods as an invertebrate parasite vector transmitting diseases and their impact on animal health and productivity.
2. Classification of arthropods with reference to representative species infesting animals in Egypt.
3. Identification of the different species of insects, acarines, and other arthropods, their habitat, structure, physiology and different reproductive pattern.
4. Studying different ways to control parasitic arthropods or disease vectors especially the environmentally safe methods including application and mode of action are of special concern.
5. Understanding the importance of unicellular animal parasites as a pathogenic cause of major problems in animals’ birds, fishes and human being. Their structure, functional organelles, physiological criteria and reproductive pattern. Also, the host-relationship specificity.
6. Studying the Nomenclature and classification of parasitic protozoan parasites with reference to the significant species in Egypt.
7. Identification of the different parasitic species in terms of their habitat,structure, physiology ,reproduction in their different hosts. Pathogenesis and diagnosis in the infected intermediate, carrier and final hosts.
8. Understanding different ways to control parasitic protozoan parasites in their hosts, vaccination and treatment. Including biosecurity based on the understanding of the life style of each species.

By the end of the course the student should be able to:

* 1. Identify the parasitic arthropods.
  2. Recognize the disease problem caused by arthropods directly or as disease vectors.
  3. Establish how to control and prevent arthropod dissemination and spread in the surroundings.
  4. Identify parasitic protozoa based on international scientific nomenclature.
  5. Recognize the disease problem caused by protozoa in different animals.
  6. Know how to control and to prevent the parasite spread in the environment.

**Course contents:**

* Introduction, structure, physiol.
* Arthropode Development
* Development, Classif.
* Myriapoda
* Insecta, Classif., O.Diptera,
* Nematocera, Mosquitoes
* Nematocera, Culicoides, sand fly,
* Brachycera Tabanus
* Cyclorrapha True flies,Classif., F.Muscidae
* Myiasis,classif.,
* F.Hippboscida
* Fleas, lice; bugs
* O.Coleoptera,Hymenoptera, Siphonaptera,Hemiptera,Mellophaga,Anoplura
* Classif.,Metamorphosis,
* F.Argasidae
* Cl.Arachnida
* Hard ticks, F.Ixodidae,
* mites Sarcopt,Psoroptes Demodicidae
* Crustacea, Cyclpos,
* Pentastomida.
* Introduction,Structure and physiol
* Structure of protozoon
* Reproduction and classification
* Flagellates,salivarian trypanos.
* Stercorarian tryps., Leishmania
* Tricho.,Giardia,Hexamita
* Histomonas,Sarcodines
* Apicomplexa,Intro.,Clas.Eimeri
* Isospo.,Wenyo.,Tyzze.,Cryptosp
* Toxo.,Sarcocys.,Neosp.,Besnoit, Plasmod.,Hemo.,Leucocytoz.
* Babesia,Theileria,Anaplasma,
* Microspo.,Myxozo.,Ciliates