

## Principle Courses for PhD

Code & Name	Contents
<p><b><u>POD-2170</u></b></p> <p>Prevention in the field of poultry diseases:</p>	<p>Study how to protect birds and rabbits from common diseases using vaccines, antibiotics, anti-coccidia, antifungals -feed additives. Epidemiology of the disease related to the characteristics of the causative field and laboratory tests used in the breeder. Immune system: organs, tissues and cells and types of immunity. Antigens: definition, specificity, types and factors affecting immunogenicity. Antibodies: properties and function of different. Site, mechanism and theories of antibody production. History of veterinary vaccine and development. Vaccines and comparison of major types. Methods of inactivation and attenuation of pathogens. Modern vaccines. Vaccine technology. Methods of immunization and evaluation of response. Applied poultry pharmacology and drug resistance. New drugs and drug formulations. Strategies of disease management: prevention, control and eradication. Disinfection and disinfectants. Evaluation of preventive programs.</p>
<p><b><u>POD-2171</u></b></p> <p>Laboratory diagnosis of poultry diseases:</p>	<p>Diagnosis of poultry diseases. Introduction about field problems and classification. - recognize pathogens and their characteristics - Collection of data - Field observation and investigation. Laboratory investigations of pathogens from bacteria - viruses - fungi - parasites to confirm the diagnosis either directly on the pathogen itself or indirectly through the work quality tests serum of infected chickens or rabbits - how to make a virulence tests in birds or any other animals experiments - Differential diagnosis of problems. Identification of pathogen strains and distinguish it from other strains and its value in eliminate disease problems facing poultry industry. Serological diagnosis- Methods advanced diagnostics: Molecular diagnosis and Phylogeny, Blood analyses, Pathological changes- Evaluation of results Linking laboratory diagnostics with field application- Computer applications in farms.</p>