Summer training program specification

A- BASIC INFORMATION

1- **Program title:** Bachelor degree in Veterinary Medical Science. (B.v.sc).

2- **Program type:** single

3- Departments:

1- Department of Anatomy and Embryology.

2- Department of Cytology and Histology.

3- Department of Physiology.

4- Department of Biochemistry.

5- Department of Animal and poultry Management Wealth development.

6- Department of Pharmacology.

7- Department of Pathology.

8- Department of Parasitology.

9- Department of Nutrition and Clinical Nutrition.

10-Department of Bacteriology, Mycology and Immunology.

11-Department of Virology.

12-Department of Toxicology and Forensic Medicine.

13-Department of Food Safety and Technology.

14-Department of Clinical Pathology.

15-Department of Fish Diseases and Management.

16-Department of Animal Medicine.

17-Department of Veterinary Surgery, Anesthesiology and Radiology.

18-Department of Theriogeneology.

19-Department of Hygiene, Zoonoses and Epidemiology.

20-Department of Poultry Diseases

1- **Coordinator:** Prof. Dr.

2- **Date of program approval:** Decision of Faulty Council number ( )

3- **B: PROFESSIONAL INFORMATION**

1- Program aims:

Training program of the Faculty of Veterinary Medicine,Beni-suef University aims to:

a) Complete the educational program according to faculty by law article
b) Increase professional and practical experience and employment opportunities.
c) Improve the relation between the faculty and the surrounding societies.

2- Intended Learning outcomes (ILOs)

At the end of the training program, the graduate should have achieved the following ILOs:

a) Knowledge and understanding:

At the end of the training program, the graduate should be able to:

a1- Recognize the fundamental of normal and abnormal microscopic and macroscopic anatomy of different animal body systems.

a2- Discuss the physiology and biochemistry of different organs and the principles of clinical laboratory diagnosis by using advanced techniques for different diseases affecting animals, birds and fish.

a3- Identify various animal and birds' production, nutrition and environmental housing and hygiene control measures

a4- List the microorganisms and parasites of veterinary importance.

a5- Identify the most common hazards associated with meat, milk and their by-products.

a6- Discuss scientifically different affections of biological, physical and chemical causes in different farm animals, birds, rabbit and fish and the lines of veterinary prescription.

b) Intellectual skills:

At the end of the training program, the graduate should be able to

b1- Differentiate the normal and abnormal microscopic and macroscopic pictures of different tissues in animals, birds and fish to provide a full review of most salient points in them from applied and comparative points of view.

b2- Estimate the different metabolic pathways.

b3- Standup thinking for how to deal with and mange animal production and nutritional problems to achieve maximal profits.

b4- Capable to correlate between the diseases and its etiology.

b5- Interpret the relationship between the parasites and micro-organisms and clinical observation.

b6- Interpret of drug-drug interaction in the veterinary field as well as differentiate the actual cause(s) of intoxication among farm animals.

b7- Differentiate between different diseases and select suitable treatment and preventive measures for animal, birds, rabbits and fish.

b8- Analyze infertility problems and overcome them.

b9- Make judgments about quality of meat, milk and their by-products as well as their suitability to consumption.

b10- Differentiate various surgical problems in farm and pet animals under field conditions.

b11- Investigate the hygienic problems in the farm to provide suitable control measures.

b12- Interpret the laboratory results to reach the final diagnosis.

c) Professional and practical skills:

By the end of the tanning program the student should be able to:

c1- Detect the different animal body organs on live animals.

c2- Perform the microscopical investigations to identify different tissues and cells as well as body fluids among animal species.

c3- Estimate various physiological and biochemical components of body fluids in vitro.

c4- Manipulate physically and chemically restraint of farm, pet animals and in a safe and human manner under field condition.

c5- Perform pathological investigation to achieve a definitive diagnosis in farm animals, birds, rabbits and fish.

c6- Diagnose and control the of parasitic infestation and microbial infection.

c7- Apply isolation and identification protocols of different microorganisms and parasites using different modern laboratory technique.

c8- Prepare some prescriptions for veterinary use.

c9- Select and use the most rapid and efficient antidote for the diagnosed poison.

c10- Apply hygienic system in farm animals.

c11- Gain the case history professionally for animals, birds and rabbit owners.

c12- Diagnose, treat and prevent of infectious and non-infectious diseases among farm animals, birds, rabbits and fish.

c13- Use different diagnostic methods as clinical and modern devices to treat the infertility and surgical problems in both male and female animals.

c14- Formulate efficiently the suitable ration for different animals, birds and fish according to their requirements.

c15- Judge fitness of human food of animal source for consumption.

c16- Build up a therapy program, preventive and control rpograms for animal, birds, rabbits and fish.

d) General and transferable skills:

By the end of the tanning program the student should be able to:

d1- Add the language term and expression of veterinary field.

d2- Communicate with owners.

d3- Write clinical reports efficiently.

d4- Get the clinical and laboratory ethical performance in the veterinary field.

d5- Achieve self-confidence and leadership skills.

d6- Gain creative thinking skills thought analysis of problems.

3- Training structure and contents:

a- Duration of the program: 6 months

b- Training program structure:

According to the Faculty of Veterinary Medicine, Beni-Suef University Bylaws and regulations for undergraduate students, Faculty of Veterinary Medicine, Beni suef university "The students have to finalize a field and clinical training after the final examination of the 2nd, 3rd ,4th and 5th grading years for 6 months during the summer vacation. It classified into 4 periods four weeks following the 2nd, 3rd , 4th and 5th years in laboratories of the faculty, animal research institute, slaughterhouses, governmental clinics and hospitals under supervision of the faculty academic staff and their assistants, and the staff in the location of the training. in addition to 2 weeks during 4th and 5th mid year vacation, clinical conveys under supervision of the faculty academic staff and their assistants

The faculty council determines the students group; their distribution and the training location. The general supervision of the training is nominated by the faculty dean and the vice dean for the education and students affairs.

3. b. i- Number of hours per week per grade:

level	Duration by weeks	Total hours	Type of training
After the 2nd year	**four**	**160**	In laboratories of the faculty
After the 3rd year	**four**	**160**	In laboratories and farm of the faculty and Animal Health research institutes, other vet. Laboratories, pharmaceutical and feed factories.
After the 4th year	**four**	**160**	In laboratories and farm of the faculty, animal research institute, slaughterhouses, governmental clinics and hospitals
After the 5th year	**four**	**160**	In laboratories and farm of the faculty, animal research institute, slaughterhouses, governmental clinics and hospitals
during 4th and 5th years at the mid year vacation	**Two weeks In each year**	**160**	Clinical conveys under supervision of teaching staff. Of department of 4th and 5th academic years
Total	**20**	**800**	

3. b .ii- Practical/ field training: 800 hours in summer months at rate 8 hours/ day

C- Content and skills:

Dep./ course	Skills that student should acquire
Anatomy and Embryology	• The students had the ability to deal with different aspects concerning the clinical anatomy of the various regions of the animal body
Cytology and Histology	• The students must have a moderate background of the basic histological techniques, be independently able to obtain and process tissue specimens and finally to prepare, stain and examine histological sections with special reference dealing with the different types of the body tissue.
Biochemistry	• Students should gain the essential practical skills in the laboratory test for metabolic disorders and basic molecular techniques.
Physiology	• Provide the undergraduate student with the advanced veterinary medical knowledge and skills essential for physiology and necessary for further training and practice in the field of physiology.
Animal behavior and management	• Perform physical examination of animals for signs of health. • Write a report about soundness of animals. • Write a certificate about imported and exported animals. • Read a pedigree in farmed animals. • Assess and advice about animal management and reproductive efficiency. • Gain skillfully and appropriately use new information in the field of animal behavior. • Utilize appropriate safety procedures to protect clients and c0-workers. • Scan the actual etiological factors which can induce behavioral disorders in animals. • Solve the different behavioral vices in horse, cattle, buffalo, camel, sheep and goat.
Animal production	• Follow up the dairy, beef, sheep and poultry activities in production farms. • Improve the performance of dairy, beef, sheep and poultry projects.

Dep./ course	Skills that student should acquire
pathology	• The students had the ability to sampling, trimming, processing different tissue specimens. • The students had the ability to make post mortem examination, sampling, processing, and interpret different tissue specimens.
Veterinary pharmacology	• The students had the ability to treat different diseased conditions affecting body systems, treatment of different infective agents in animals and poultry and treatment of different toxicity cases. Moreover, to choose the most safe and effective antiseptics and disinfectants. In addition, to determine the antibiotics sensitivity test, minimal inhibitory concentration and LD50 of drugs.
Nutrition and Clinical Nutrition	• The students had the ability to deal with different nutritional practices such as applied ration formulation, feed mills, feed mill Evaluation, malnutrition diseases, and clinical nutrition for different animals, poultry, and fish species.
Clinical Pathology	• Students will learn practical skills and techniques directly relevant to essential laboratory equipment, essential laboratory procedures and reading a report and correlating between laboratory data to get correct diagnosis.
Fish Diseases and Management	• Show the species of fish and shellfish in common aquaculture production and their position in the market place. • Equip with specialized skills of laboratory and field sample collection and processes, and practical sampling of water quality parameter. • Perform emergency care to fish. • Use appropriate safety procedures to protect themselves and co-workers. • Write a communication report, direct data presentation.
Theriogeneology	• The students had the ability to deal with different animal species under field conditions dealing with animal owner, understanding the field languages, diagnosis, differential diagnosis, and prognosis and outline the principles of special obstetrical and gynaecological interventions.

Dep./ course	Skills that student should acquire
Veterinary Surgery, Anesthesiology and Radiology	• Diagnosis and differential diagnosis of General and Special surgical problems. • Surgical management of General and Special surgical problems: • Control • Select the suitable anesthetic regimen • Non-surgical and surgical intervention. • post-operative care • Post-operative complications. • Prognosis of a surgical problem
Animal Medicine	• the students had the ability to deal with different animal species under field conditions dealing with animal owner, understanding the field languages, diagnosis, differential diagnosis, and prognosis and outline the principles of special methods for animal examination and diagnosis sequence with special attention for diagnosis of internal animal diseases, taking case history, examination of the animal and treatment of clinically diseased cases.
Infectious Diseases	• Skills of diagnosis, differential diagnosis and control of infectious diseases in different animal species. • Practical approach to schedules of vaccination against infectious diseases (designing and application). • Practical application of the official programs for eradication of bovine tuberculosis and brucellosis. • Designing of the strategies of periodical mass treatment against endemic parasitic diseases.
Bird and Rabbit Medicine	• The students had the ability to deal with different avian species under field conditions dealing with the owner, understanding the field languages, diagnosis, differential diagnosis, and prognosis and outline the principles of treatment of poultry and rabbits diseases.
Animal and Birds hygiene	• The students had the ability to deal with different animal species under field conditions dealing with animal owner, understanding the field languages, and outline the principles of combating external parasites.

Dep./ course	Skills that student should acquire
Food Food Safety and Technology	• Student should understand the basic concepts about food microbiology, safety and quality of milk and its products, gain the ability to perform different microbiological procedures, and get the basic knowledge about food safety ensuring programs like HACCP and ISO. • The students had the ability to deal with different various sectors in the meat hygiene field, including slaughterhouses, refrigerators, places for sale of meat and meat factories. Master a wide range of training skills on the different processes in these facilities and their role in meat hygiene control. • Apply scientific training methods of the quality and safety of meat in these sectors.
Bacteriology, Mycology and Immunology	• The students had the ability to deal with different clinical samples from poultry suffering from Infectious diseases in laboratory of Bacteriology, Mycology and Immunology, understanding the sample transportation, processing, direct laboratory diagnostic techniques.
Parasitology	• The training program aimed to produce trained veterinary students: - Able to deal with the broad spectrum of specimens and problems encountered in general veterinary parasitology. - Acquire skills and competence in a particular species sufficient to lead a diagnostic team in this area if required.
Virology	• The students had the ability to deal with laboratory diagnosis of different viral diseases by isolation of viruses, serological tests and molecular based techniques, also students became able to deal with equipment of sterilization and tissue culture techniques and how to prepare samples derived from infected animals and birds for detection of viruses.
Forensic Toxicology and medicine	• At the end of this course, the students have the ability to: - Deal with toxicology cases under field conditions. - Outline the broad principles of experimental toxicology. - Perform the required laboratory forensic analysis.

The program of summer training as follows:

Faculty of Veterinary Medicine, Beni-Suef University Bylaws:

A. 2nd academic year, training will extended for 4 weeks, 8 hours a day which equal 160 training hours, in the laboratories of the departments of 1st and 2nd academic years and other field application.

B. 3rd academic year training will extended for 4weeks, 8 hours a day which equal 160 training hours, at the laboratories of and farm of the faculty and Animal Health research institutes, other vet. Laboratories, pharmaceutical and feed factories.

C. 4th and 5th academic years training will extended for 4weeks, 8 hours a day which equal 160 training hours/each year at the laboratories of departments of 4th and 5th academic year, animals farms, veterinary clinics, vet. Med. authorities (vet. Clinics, slaughter houses, vet. Quarantine, food control, general veterinary hygiene, animal, poultry and fish frams, and other field application.

D. During 4th and 5th mid year vacation two weeks each (80hours) as clinical conveys as well as animal, poultry and fish farms

4- Teaching and training:

1- The summer practical / training program includes a variety of teaching and training approaches for different intended training objective, including sessions; practical skills include laboratory class & clinical practice, clinical conveys and field visits.

2- The students were divided into small groups in internal training and to other sub groups in clinical training convey and make a round for each department.

5- Assessments:

According to the Faculty of Veterinary Medicine, Beni-Suef University Bylaws:

I- Faculty of Veterinary Medicine, Beni-Suef University Bylaws:

A. The faculty council upon the suggestions of the scientific departments will determine the specifications of the training program and the intended learning outcomes according to the goals of the education program

B. B-Student's assessment will be done at the end of each training period according to the attendance and final applied and practical examination according to the approval of the faculty council. The grades of the training will not be added to the students total grade count.

C. Students who did not attend the training or who had failed will repeat the training period with the new students according to the approval of the faculty council.

D. The students will not granted the bachelor degree except after completing the training program with success according to the approval of the faculty council.

E. The faculty council decides (according to a suggestion of the vice dean of education and students) the beginning and finishing of the training program and the method of dividing the students or the training places, formulation of the general supervise and the specialized supervisor for the preparation and the execution.

II- The training program depends on variant actions for assessment according to the nature of training.

1- Attendance.

2- 2- Final applied and practical exam.

III- Weight of assessment:-

1- Attendence not less than 75%
2- Passing the applied and practical exam at the end of training period
3- Assessment schedule

Assessment	Total allocated Marks
excellent	**90% and more**
Very good	**80%to less than 90%**
good	**70% to less than 80%**
pass	**60% to less than 70%**
fail	**Less than 60%**

6-Student support:

1- The student offer transportation facilities (whenever possible).

2- The right to choose the nearest laboratory and clinic to his home.

7- Training Program Admission Requirements

The student should finish the academic grading year related to the period of training.

8- Regulation for progression and program completion.

The student passes if he assures attending for the program. This is According to the Faculty of Veterinary Medicine, Beni-Suef University Bylaws and regulations for undergraduate students, Faculty of Veterinary Medicine, Beni suef university

The student is offered an authorized certificate from the faculty after succeeding in the final summer training exams, indicating his passing the summer training program period (6 months) successfully.

9- Evaluation of program intended training outcomes:

Evaluator	Tool	Sample
1- Participant students	Questionnaires and open discussion	
2- Stakeholder	Questionnaires and open discussion	

PROGRAM COORDINATOR AND DEAN