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**GUIDELINES FOR ANIMAL HEALTH TRAINING AND  
EXAMINATION USING ON-LINE PLATFORMS**

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## **DEFINITION OF TERMS**

In these guidelines, unless the context otherwise requires, the following definitions of key terms shall apply:

**Blended Learning:** is a style of education in which students learn via electronic and online media as well as traditional face to face teaching.

**Cognitive presence:** is the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse.

**Curriculum:** means KVB approved Animal Health training programme of study;

**E-learning:** Means learning facilitated by the use of digital tools and content that involves interactivity, which includes online interaction between the learner and their teacher or peers. The learning is mediated through a wide range of current and emerging digital technologies and resources. Also referred to as on-line learning.

**Formative assessment:** are quizzes and test that evaluates how someone understands content throughout a course. Its goal is to monitor student learning throughout the course and may help to modify teaching and learning activities to improve students' attainment.

**Student learning support:** A range of services to assist students to meet their learning objectives and gain the knowledge and skills.

**Summative assessment:** are quizzes and test that evaluates how much someone has learnt throughout a course. Its goal is to evaluate student learning at the end of the course.

**Virtual learning:** a learning experience that is enhanced through utilizing computer and/or the internet both outside and inside the facilities of the educational organization. The instructions most commonly takes place in an online environment.

## **1.0 PREAMBLE**

The Kenya Veterinary Board (KVB) established under Section 3 of Veterinary Surgeons and Veterinary Paraprofessionals (VSVP) Act No. 29 of 2011, is mandated to exercise general supervision and control of the training of Veterinary Surgeons and Paraprofessionals, and advise the Government in relation to all aspects thereof in Kenya. Further, Section 6 (2) (b) of the Act, empowers the Board to prescribe in consultation with approved training institutions as deemed appropriate courses of training in animal health. Section 7 gives the Board supervisory functions on courses of study, course entry proficiency requirements and standard of examinations to guarantee that the trainees have acquired the minimum knowledge and skills necessary for the efficient delivery of Veterinary services.

Animal Health Training institutions are making strategic efforts to increase access to quality education through the use of technology. One way to achieve this goal is to provide e-learning education that is credible and available to a wide assemblage of clientele, who are off or on-campus. E-learning includes computer based training, web based training, electronic performance support systems and distance or online learning and online tutorials. The use of e-learning ensures there is continuity of teaching and learning regardless of adverse circumstances (such as COVID-19 and other emergency situations), and increase student diversity. Online learning is complimentary to the existing face to face mode of delivery and should not be construed to replace the traditional veterinary instructional methods of training veterinarians.

Animal health training institutions intending to offer training online should have technological and physical infrastructure, adequately trained human resource and appropriate software applications for the Learning Management System (LMS). The course content in animal health shall be covered as per the approved Board curricula. The purpose of these guidelines is to assist the training institutions to produce competent Animal Health service providers using a blended learning approach comprising of online and face to face mode of delivery.

The practical training and examination of animal health shall be delivered through face to face mode of learning.

## **2.0 REQUIREMENTS FOR ONLINE TRAINING**

Institutions intending to offer any component of Animal Health training on-line must fulfil the following requirements:

### **2.1 E-LEARNING CENTRE**

The institution should have e-learning centre/department/unit with the following personnel:

- a) Coordinator of the animal health programme must be a registered veterinary surgeon
- b) Learner support and assessment staff/personnel
- c) Instructional system designers
- d) ICT support staff including multimedia specialists
- e) Library staff

### **2.2 PHYSICAL INFRASTRUCTURE**

- 1) Must have physical facilities dedicated to e-learning, including but not limited to:
  - a) Instructional systems design studios
  - b) Multimedia production facilities
  - c) Data centres/server rooms (includes cloud computing)

These are in addition to the existing requirements in animal health training which include offices, lecture rooms, laboratories, animal farm, library and assistive facilities to support learners with special needs.

- 2) Must have equipment dedicated to e-learning including but not limited to servers, computers, projectors, cameras, smart and interactive boards, scanners and printers.

### **2.3 TECHNOLOGY INFRASTRUCTURE AND MEDIA**

The training institution must have technological infrastructure to ensure delivery and quality e-learning.

#### **2.3.1 Technological Infrastructure include:**

- a. Functional website
- b. Software application for the purpose of e-learning (LMS) e.g. Moodle platform
- c. Student management information system

- d. Integration of student management information system and the e-learning management system
- e. Software in place to detect academic dishonesty including deception, plagiarism, theft and fraud
- f. Reliable and adequate internet connectivity to teaching staff and learners
- g. Interactive web-based systems for communication and access to academic resources required by learners and teaching staff
- h. Mechanisms for maintaining and supporting the web-based systems.
- i. A system in place for archiving past examination questions and results for ease of retrieval
- j. Assistive facilities and adaptive technologies to support learners with special needs
- k. The content offered through e-learning should be in line with the curriculum as approved by KVB

**2.3.2** The institution should have electronic library resources and access mechanisms to support teaching and learning. This should include but not limited to:

- a) Subscription to electronic resources
- b) Links to the e-library portal
- c) Digital library repository
- d) Interlibrary loan arrangements

**2.3.3** The Learning Management Systems (LMS) should support the following areas:

- a) The various operating systems, browsers and mobile platforms
- b) Privacy and data protection
- c) Social presence to allow learners interact as a community
- d) Teaching presence to enable instructors design and facilitate learning experiences, direct instruction and monitor performance of learners
- e) Cognitive presence in terms of engaging learners in higher order thinking to construct and confirm meaning, receive feedback and monitor progress and

- f) Student research and supervision in terms of monitoring, feedback and provision of progress reports.

## **2.4 ONLINE TRAINING POLICIES**

The institutions must have the following policies:

- a) Human Resource Policy
- b) Examination/assessment Policy
- c) E-learning student support policy
- d) Field attachment policy
- e) Quality assurance policy

## **2.5 STAFF TRAINING**

The institution should deploy adequate staff dedicated to e-learning and build their capacity in the following areas:

- a. Instructional systems design
- b. E-learning course design
- c. Course content delivery
- d. Preparation of E-learning modules and materials
- e. Learning Management System and its operation
- f. Management and conducting online examination

The staff should have access to e-learning resources.

## **2.6 E-LEARNING STUDENT SUPPORT**

The institution should support the students on the following area

- a. Training and orientation for e-learning
- b. Provide student e-handbook package/guideline
- c. Ensure students have tools for learning

The institution should have an administrative unit where students can access support services on the use of IT for e-learning.

## **2.7 EXAMINATION/ASSESSMENTS**

The institution should establish mechanisms and implementation framework for student assessment on:

- a. Formative and summative assessments in e-learning programmes, including their weighting
- b. Criteria for the evaluation of student work and participation
- c. Grading and providing feedback on assessment
- d. Student assessment reports generation, analysis, and archiving
- e. Communication of feedback assessment to students
- f. Integration of feedback on assessment to review the curriculum

The institution should ensure integrity and reliability of assessment tools.

When circumstances cannot permit face to face mode of examination, the Institution should provide for examination management protocol as follows:

- a. Tools and methods for student authentication during examinations.
- b. Examination invigilation procedures.
- c. Security mechanisms for online examinations during setting, moderation (pre and post) handling, packaging, execution, and marking.
- d. Document procedures for quality assurance of e-learning assessment and examinations.

## **2.8 FIELD ATTACHMENT AND RELATED COURSES**

The institution must have field attachment implementation framework that should include the following:

- a. Co-ordination, supervision, and evaluation for field attachment
- b. Communication strategy to relevant stakeholders
- c. Feedback to the institution on student performance during their attachment
- d. Resources the institution provides during the field attachment.

## **2.9 QUALITY ASSURANCE**

a) The institution should have strategies, and instruments in place for Quality Assurance on e-learning that includes organizational structure, budgetary allocation, staffing, roles, and responsibilities.

b) Establish mechanisms for monitoring, evaluating, and reporting the quality of e-learning offered.



