COURSE SYLABUS (Code: CN01201)
GENERAL MICROBIOLOGY

1. General information

Course: General microbiology (CN01201)

Credits: 2 (Lecture: 1,5 – Practice: 0,5 – Self-study: 6,0)

Training program: Animal Science (Option 1: Animal production & Health, Option 2: Animal nutrition & Feed technology)

2. Expected learning outcomes (ELOs)

Notation	Course expected learning outcomes After successfully completing this course, students are able to	Program expected learning outcomes
Knowledge		
K1	Evaluate the Morphology, cell tructure, and repoduction of microorganisms; Role of microorganisms in livestock production; Evaluate the metabolic activity and microbial growth; Presenting basic knowlegde of microbial genetics to apply in the fied of screening/selection for higher producing microbial strains, and animal breed selection	**ELO1: To apply** the natural, social and scientific knowledge on contemporary issuses in the fied of Animal science
K2	Evaluate the effects of environmental factors on microbial growth. Applied this knowlegde in animal feed processing, and farm management; Evaluate the effects of microorganisms in soil, water and air on animal health and farm management.	ELO 2: **Analyze** factors affecting the animal breed production, nutrition, and animal health
Skills		
K3	To competently practice and implement all fundamental microbiological techniques in the microbial lab in order to perform basic microbiological researchs in future projects.	**ELO 5: To apply** critical thinking, creative thinking, and problem-solving skills effectively in scientific study and professional practice.
Attitute		
K4	Follow all the VNUA regulations. Attendance and participate all the learning activities.	**ELO 12: Compliance** with laws, rules, regulations and professional ethical standards environment, public health and respect animal welfare

3. Brief descriptions

Chapter 1: Introduction

Chapter 2: Morphology - Cell structure - Repoduction of microorganisms

Chapter 3: Microbial Physiology

Chapter 4: Effects of environmental factors on microbial growth

Chapter 5: Microbial genetics

Chapter 6: Distribution of microorganisms in nature

4. Learning methods

-Self-learning: Students will receive the course outline and list of textbook and references books before the class. Learners should look for the information concerning with the lecture

- Participate in Lab practice activities

5. Assessment methods

- Grading scale: 10

- Average point: is the sum of the rubric scores multiplied by the weight of each rubric

+ Class attendance and attitude: 10%

+ Mid-term test: 30%

+ Final exam: 60%

6. Student tasks

***Class attendance*:** Students have to attend classes on time and be active in discussion. Attendance for lectures must be followed according to the current regulations set by the MOET and VNUA. If the student miss class, in acceptable cases, it is his or her responsibility to obtain missed lecture notes and supplemental handouts.

Lab practice: Students must attend all practice content

Final exam: Failure to participate in the final exam will be graded zero and not re-tested (except for force majeure reasons).

7. Key academic staffs

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Communicate with key academic staffs: via email, phone and e-learning system.