



UNIVERSITY OF SWAZILAND  
Faculty of Health Sciences  
Department of Environmental Health Science

DEGREE IN ENVIRONMENTAL HEALTH AND FOOD  
SCIENCE

**FINAL EXAMINATION PAPER 2016**

TITLE OF PAPER : FERMENTED FOODS  
COURSE CODE : EHM 424  
DURATION : 2 HOURS  
MARKS : 100

INSTRUCTIONS : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY  
: ANSWER ANY FOUR QUESTIONS.  
: EACH QUESTION CARRIES 25 MARKS.  
: WRITE NEATLY & CLEARLY  
:  
: BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

**DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.**

**QUESTION ONE**

Discuss *Lactobacillus* spp. that are relevant to traditionally fermented Swazi foods.

[25 Marks]

**QUESTION TWO**

(a) What are the desirable properties of starter cultures in dairy, bread, wine and beer?

[16 Marks]

(b) Briefly outline the role of starter culture in fermented foods

[9 Marks]

[25 Marks]

**QUESTION THREE**

(a) Write short notes on any five ingredients used in the manufacture of bread.

[15 Marks]

(b) How would you differentiate hanging fermentation from sluggish fermentation?

[10 Marks]

[25 Marks]

**QUESTION FOUR**

(a) Briefly discuss the properties of any six bacteria used in meat fermentation.

[15 Marks]

(b) What role do bacteria play in wine fermentation?

[10 Marks]

[25 marks]

**QUESTION FIVE**

(a) Discuss the primary phase in beer fermentation and how it impacts on quality of beer.

[20 Marks]

(b) Give examples of acetic acid bacteria used in manufacture of vinegar.

[5 Marks]

[25 Marks]