

120



1st SEMESTER 2016/2017

PAGE 1 OF 3

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE DEGREE IN AGRONOMY
YEAR 4**

COURSE CODE: CP 402

TITLE OF PAPER: BIOFUEL CROP PRODUCTION

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTION: ANSWER QUESTIONS ONE AND TWO, WHICH ARE
COMPULSORY AND ANY OTHER TWO (2) QUESTIONS
OF YOUR CHOICE**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED
BY THE CHIEF INVIGILATOR**

QUESTION 1
(THIS IS A COMPULSORY QUESTION)

Discuss adaptation and mitigation measures that can be used to address the adverse effects of drought in Swaziland. Your answer should include both agricultural and non-agricultural sectors.

(28 Marks)

QUESTION 2
(THIS IS ALSO A COMPULSORY QUESTION)

Explain the following terms/statements. Each question carries four marks.

- (a) Kyoto Protocol.
- (b) Swaziland Environmental Authority
- (c) Biogas
- (d) Green house gases.
- (e) Differences between El niño and La niña
- (f) Status of ethanol production in Swaziland.
- (g) Sweet sorghum as a feedstock.
- (h) Physiological drought.

(28 Marks)

QUESTION 3

What is climate-smart agriculture?

[3 marks]

Discuss the three principles of climate-smart agriculture

[6 marks]

Write briefly adaptation strategies for climate-smart agriculture in Swaziland

[13 marks]

(22 Marks)

QUESTION 4

Write an essay on energy and energy sources in Swaziland. Include in your discussion how each of these sources of energy can be used most efficiently

(22 Marks)

QUESTION 5

Discuss the differences between the terms “global warming” and “climate change”

(22 Marks)