United States International University-Africa

SCHOOL OF PHARMACY & HEALTH SCIENCES

COURSE:	**ENV 3288 FIELD STUDIES**
SEMESTER:	**SUMMER, 2018**
LECTURER:	**TERESA NJERI**
TIME/DAYS:	**1.20-3.00 PM, MONDAYS AND WEDNESDAYS**
CLASSROOM:	**SC2**
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1. COURSE DESCRIPTION

The field studies course offers an educational experience with definite educational goal beyond 'guided tour" to specific locations. It involves a study of methods used in the field right from problem identification, hypothesis setting and testing through to report writing and presentation at the end, where possible experience will be gained from opportunities for field work at established international programs in selected environmental issues

2. LINK TO UNIVERSITY MISSION OUTCOMES AND PROGRAM LEARNING OUTCOMES:

1. Higher Order Thinking
   - Collect, analyze and evaluate energy data/information to formulate valid conclusions
   - Demonstrate the ability to reason critically and creatively in an interdisciplinary context
2. Literacy
   - Apply basic scientific, quantitative and technological skills in managing diverse energy resources and increasing energy needs.
3. Preparedness for career
   - Apply intellectual knowledge to practical tasks

3. EXPECTED COURSE LEARNING OUTCOMES

At the end of the course the student will be able to:

a. Identify existing environmental problems
b. Formulate a practical hypothesis and set criteria for hypothesis rejection
c. Understand various scientific research methods and research designs
d. Collect data using relevant sampling/research designs and methods
e. Organize data and perform data analysis to reject or accept the H0
f. Make conclusions and recommendations.

4. CONTENT & CLASS SCHEDULE:

4.1 WEEK ONE

Learning Outcome:

To appreciate different ways of making observations, ask questions and gather information.

Topic/subtopic

a) Key environmental issues in the country or school through group discussions
b) Problem identification, hypothesis formulation

4.2 WEEK TWO

a) Learning Outcome:

To gather information on the identified environmental problem

a) Topic/subtopic

1. Literature review on the problem of interest
2. Purpose of literature review, steps in developing literature review.

4.3 WEEK THREE

a.) Learning Outcome:

To understand various research methods.

b) Topic/ sub-topic:

Research approaches.

1. Qualitative and quantitative methods
2. Population and samples
3. Dependent and independent variables

4.4 WEEK FOUR

a) Learning outcomes

To understand the various research methods

b) Topic/ sub-topic:

Sampling designs: Systematic sampling, Simple random sampling, deliberate sampling.

4.5 WEEK FIVE

a) Learning outcomes

To make observation and identification of a problem

b) Topic/ sub-topic:

1. Visit Karura forest to assess environmental issues in the forest.

4.6 WEEK SIX

a.) Learning Outcome:

To describe research designs: formal and informal

b) Topic/ sub-topic: research designs

1. Completely randomized design, randomized block design

4.7 WEEK SEVEN

MID SEMESTER EXAMINATIONS

4.8 WEEK EIGHT

a.) Learning Outcome:

To collect data on the selected topic

b) Topic/ sub-topic:

1. Field data collection using relevant sampling techniques and research designs.

4.9 WEEK NINE

a) Learning outcomes

To analyse data and assess results

b) Topic/ sub-topic:

Types of data

1. Numerical : continuous, discrete, interval, ratio scale data
2. Categorical data

4.10 WEEK TEN

a) Learning outcomes

To analyse data and assess results

Subtopic/topic

Data organization for categorical data.

1. Data charts, tables,

Data organization for categorical data.

1. Charts and tables,
2. Scatter plots

4.11 WEEK ELEVEN

Learning outcomes

To analyse data and assess results

Subtopic/topic

Data organization for categorical data.

3. Mean/average, Median, Mode
4. Variance and Standard Deviation

4.12 WEEK TWELVE

Learning outcomes

To analyse data and assess results

Subtopic/topic

Data organization for categorical data.

5. Analysis techniques comparing means using T-test and ANOVA, showing a relationship using correlation and linear regression.

4.13 WEEK THIRTEEN

Learning outcomes

To produce a research report

Subtopic/topic

Information compilation.

1. Discussion of results
2. Conclusion and recommendations

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4.14 WEEK FOURTEEN

END OF SEMESTER EXAMINITIONS

5. COURSE TEACHING METHODOLOGIES

Interactive and participatory lectures, group discussions, online and library research, review of publications, production of publication and presentations, and use of multi-media.

6. KEY INSTITUTIONAL AND ACADEMIC POLICIES

- Seven absences from class will result in an automatic grade F
- All references used to do assignments should be cited correctly
- Assignments should be done and submitted on the due dates shown
- No make ups are given for tests assignments and exams

7. RECOMMENDED TEXT

1. **Gravetter, F. 2009.** Statistics for the behavioral sciences ***8th edition, International student edition,*** Wadsworth Cengage Learning

OTHER TEXTS

2. David M Levin and David F Stephan. Even you can learn statistics: a guide for everyone who has ever been afraid of statistics. Person prentice hall, 2005
3. Jon Curwin and Roger Slater. Quantitative methods: A short course London: Thompson Learning, 2004
4. Vic Barnett and K. Feridum Turkman. Statiatics for the environment. Chichester; John Wiley and Sons Ltd, 1993.

8. COURSE EVALUATION

Attendance and participation	10%
Quizzes	10 %
Individual Assignment	10%
Group Assignment	15%
Mid Semester Exam.	25%
Final examination	30%

9. GRADING SYSTEM

A	90-100	C	70-73	D+	64-66
A-	87-89	C-	67-69	D	62-63
B+	84-86	B-	77-79	D-	60-61
B	80-83	C+	74-76	F	0-59