Appendix C
College of Micronesia-FSM

COURSE OUTLINE COVER PAGE

Principles of Animal Production _____ **AG 140**

Course Title **Department and Number**

Course Description:

Develops general skills and knowledge of the principles of efficient production including, feeding practices, breeds, management, housing, marketing, diseases and sanitation under tropical conditions.

Course Prepared by: Agriculture Division _____ **State** National

	Hours per		
Lecture	3		
Laboratory	3	No. of Week	
Workshop		Total Hours	
		Semester Credits	
x 16	x 48/16	=	3
x 16	x	=	1
x	x		
	Total Semester Credits		4

Purpose of Course: Degree RequirementX

Prerequisite Course(s): AG 101 Intro. to Agriculture

Date approved: 1/12/2004

AG 140 PRINCIPLES OF ANIMAL PRODUCTION

Course Description

Develops a general skills and knowledge of the principles of efficient production including, feeding practices, breeds, management, housing, marketing, diseases and sanitation under tropical conditions.

I. Course Objectives

General Objectives

Students will be introduce to the basic principles in animal production and be able to identify problems in livestock production in the tropics.

Learning Outcomes

Identify and describe breeds of cattle, sheep, swine, and goats
Demonstrate the ability to select breeding stock by using performance records, visual evaluation, and other tools used in selecting livestock.
Demonstrate husbandry abilities such as castrating, dehorning, medicating, palpating, ear tattooing, and tagging.
Demonstrate the ability to calculate performance data
List the major diseases of livestock and explain the methods of disease control.
Discuss the environmental impact of livestock production and ways of controlling all types of livestock pollution.
Explain the importance of livestock to our economy.
Demonstrate an understanding of the basic principles of genetics.
Compare and contrast the two types of animal cell division.
Define and diagram the six fundamental types of mating.
Illustrate the effects of genetic changes through selection,
Describe the hormonal system as it relates to reproduction.
Explain the reproductive cycle.

II. Course Contents

Orientation
Animal contribution to human needs
Overview of livestock industry
Red Meat products
Poultry and Egg products
Milk and milk products
Visual evaluation of slaughter red meat animals
Market classes and grades of livestock,
Animal reproduction and genetics
Artificial insemination
Nutrition of farm animals

Animal health
Feeding of Poultry
Feeding of Swine
Feeding of goats
Feeding of Dairy cattle
Feeding of Beef cattle
Careers in Animal Science
Animal welfare and rights

III. Learning Outcomes: Upon completion of this course, the student will be able to :

Learning Outcomes 1. Identify and describe breeds of cattle, swine, and goats.

a. Cattle — Limousine, Simmental, Red Angus, Angus, Hereford, Beefmaster, and brangus.

b. Swine - Berkshire, Duroc, Hampshire, Poland China, and Yorkshire

c. Goats — Alpine, Nubian, Saanen, Toggenberg, and Lamancha

Learning Outcomes 2: Demonstrate the ability to select breeding stock by using performance records, visual evaluations, and other tools used in selecting livestock.

a. Describe the external body parts of an animal
b. Know where the major meat cuts are located in the live animals.
c. Calculate yield grades

Learning Outcomes 3: Demonstrate the husbandry abilities such as castrating, dehorning, medicating, palpating, and ear notching,

a. Perform castration, medicating, palpating and ear notching
b. Know the tools, equipment and their maintenance.
c. Discuss the local practices of castration, medicating and branding.

Learning Out Ines 4. Demonstrate the ability to calculate performance data.

a. calculate dressing percentage
b. Calculate carcass cost

Learning Outcomes 5: List the major diseases of livestock and explain the methods of controlling them.

a. Liptospirosis
b. Hog Chlorea
c. Scours
d. Lameness
e. Parasites
f. Trichomoniasis

g. Respiratory diseases
Respiratory diseases
h. Puesorabies
Avian influenza
J. Coccidiosis
k. Marek
l. Newcastle
m. Foot and mouth
n. Foot and mouth

Learning Outcomes 6: Explain the importance of livestock to our economy

a. Discuss contributions to food needs
b. Discuss contribution to clothing
c. Discuss contribution to work and power needs
d. Explain contributions to human health research

Learning Outcomes 7: Demonstrate an understanding of the basic principles of genetics

a. Identify hereditary characteristics that are determined by genes
b. Distinguish between dominant, recessive, phenotype, genotype
c. Describe how the sex of the offspring is determined
d. Predict inheritance

Learning Outcomes 8: Compare and Contrast the two types of animal cell division.

a. Identify between plant and animal cells
b. Describe cell parts
c. Explain the functions of the cell organelles'
d. Describe mitosis cell division
e. Describe meiosis cell division

Learning Outcomes 9: Define and diagram the six fundamental types of mating.

a. Describe Homozygous Dominant x Homozygous Dominant (BBxBB)
b. Describe Homozygous —Dominant x Heterozygous (BB x Bb)
c. Describe Homozygous —Dominant x Homozygous —Recessive (BB x bb)
d. Describe Heterozygous x Heterozygous (Bb x Bb)
e. Describe Heterozygous x Homozygous — Recessive (Bb x bb)
f. Describe Homozygous — Recessive x Homozygous — Recessive (bb x b)

Learning Outcomes 10: Illustrate the effects of genetic changes through selection

a. Explain culling
b. Describe tantem selection

c. Calculate selection index

Learning Outcomes 11: Explain the reproductive cycle.

a. Describe the signs of estrus
b. State which sign of estrus is the most important with regard to time of insemination.
c. List and explain the phases of estrus cycle in farm animals.

Text:

Scientific Farm Animal Production Taylor/Bogart Live
Animal Carcass Evaluation and Selection Manual

Methods of Instruction

Lecture, group discussions, projects, field trips, laboratory exercises, and videos.

Attendance Policy

College of Micronesia attendance policy will be adhere to.

Methods of Evaluation

Quizzes
Assignments
Tests
Lab worksheets
Lab demonstrations