

AG 321 HORTICULTURE PLANT ID

Fall Semester 2010

Class Hours: Lecture T 16:00-16:50
Laboratory T 17:00-19:50

Credit hours: 2

Lecture and Lab room: Dean Circle House 1

Instructors:

Mari Marutani Room 318, ALS
Office Hours: T TH 1:00-2:30 PM or by appointment
Phone 735-2131; E-mail: marutani@uguam.uog.edu

James McConnell Room 317, ALS
Office Hours: T TH 1:00-2:30 PM or by appointment
Phone 735-2129; E-mail: mccannel@uguam.uog.edu

Course Description:

This course is an overview of important horticultural plants with the emphasis on tropical and subtropical plants, common in Guam and Micronesia. During each class and laboratory, a number of related plant groups will be discussed, and samples of living materials and photos will be presented for you to make your own observations. Whenever possible various parts of plants and growth stages will be on demonstration in order to understand their natural growth habitats. Due to the large number of plants, only selected plants will be covered. Each plant study will include learning the scientific name, common English name and local name whenever applicable, the family name, a brief description of the family, cultural values and uses, and legends associated the plant. There will be field trips during the semester, including visiting a botanical garden and campus tour. This is an enrichment course to those who wish to become familiar with important plants in Guam. One hour lecture and three-hour laboratory weekly.

Course Objectives:

1. Recognize common and botanical names of horticultural plants of the tropics and subtropics.
2. Recognize botanical terms used in plant classification
3. Recognize cultural importance of plants in Guam and Micronesia

Prerequisite: Plant biology or consent of instructor

Text: No specific text will be required. Handouts of plant description and important aspects of the plants on Guam will be distributed in each class. Use reference books and herbarium specimens, information from website on Plant Id.

References:

- Artero, V.T., F.J., Cruz, V.M. Santos. 1993. Chamorro and Scientific Names of Fruits and Vegetables. ANR-Guam Cooperative Extension, College of Agriculture & Life Sciences, University of Guam. 12pp.
- Courtright, G. 1988. *Tropicals*. Timber Press Inc. 155pp.
- Falanruw, M.C., J. E. Maka, T. G. Cole, and C. D. Whitesell. Common and scientific names of trees and shrubs of Mariana, Carolina, and Marchall Islands. USDA/Forest Service, Resource Bulletin PSW-26. 91pp.
- Fosberg, F.R., M-H. Sachet and R. Oliver. 1979. A geographical checklist of the Micronesian dicotyledonae. *Micronesia* 15:41-296.
- Fosberg, F.R., M-H. Sachet and R. Oliver. 1987. A geographical checklist of the Micronesian monocotyledonae. *Micronesia* 20:19-128.
- Mas, E.G. and S. Brantly. 2001. Forage grasses and legumes of the Pacific basin. USDA/NRCS 67pp.
- McConnell, J. and L. Guterrez. 2008. Atlas of common weeds on Guam.
- Moore P. H. and R. D. Krizman. 1981. Field and Garden plants of Guam: Tinanom Kana yan Hatdin Siha Giya Guahan. University of Guam, College of Agriculture and Life Sciences Cooperative Extension Service. 183pp.
- Moore P.H. and P. D. McMakin. 1979. Plants on Guam: I Tinanom Guahan Siha. University of Guam, College of Agriculture and Life Sciences Cooperative Extension Service. 186pp. (Also available via internet)
- Neal, M.C. 1965. In Gardens of Hawaii. Bishop Museum Press 924pp.
- Raulerson L. and A. Rinehart. 1991. Trees and Shrubs of the Northern Mariana islands. Coastal Resources Management, Office of the Governor, Commonwealth of the Northern Mariana Islands, Saipan, Northern Mariana Islands 96950. 120pp.
- Spears, P. 2006. A Tour of the Flowering Plants. Missouri Botanical Garden Press. 308pp.
- Stone, B.C. 1970. The Flora of Guam. A Manual for the Identification of the Vascular Plants of the Island. *Micronesica* Vol. 6. 659pp.
- Whistler, W.A. 1992. Flowers of the Pacific Island Seashore. University of Hawaii Press 154 pp.
- Websites on plant identification and taxonomy.
- www.botany.hawaii.edu/faculty/carr
en.wikipedia.org/wiki/Plant
plants.usda.gov/
<http://waynesword.palomar.edu/>
 and others

Course Requirements:

1. Attendance to lectures and labs. Unexcused absence will result in a reduction of points (10 points per absence)

2. Three one-hour Exam (100 points per exam). Total of 300 points possible

Exam will consist of two parts: 1) will require you to identify plants covered during classes by their scientific name, one common name (studied in class), to which family these plants belong. 2. Short essay type of questions based on various aspects of the plants discussed in class (e.g. uses). NO make-up exams will be offered due to preparation of live plant specimens.

3. Class presentation of plant specimens

You are required to present plant specimens with information on: 1) plant names, 2) origin, 3) description of plant, 4) uses, 5) additional information, 6) propagation, and 7) list of reference. Student will submit his/her plant description to instructor at least 10 species starting 10/5/10. "Plants" will be assigned to each student prior to their presentation.

4. Pencil drawings of plants.

You are required to draw one plant specimen from each class and have them on file to be submitted on the last exam day (Exam #3). The drawings are to be made by a pencil on white 8 1/2 x 11 inch blank paper. Each drawing should fill the paper as much as possible and include a branch or twig with few leaves, a flower or fruit (or both). Each drawing should also accompany with data such as scientific name, common name, family name and the date. Drawings will be graded mainly on accuracy.

5. Evaluation: Class presentation (oral)	100
Class presentation (plant description) 10 species	100
Exam #1	100
Exam #2	100
Exam #3	100
Submission of botanical illustrations	120

Grades:	A=90-100%
	B=80-89
	C=70-79
	D=60-69
	F=below 60%

6. SPECIAL NEEDS

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2243/2244/2971 to coordinate your accommodation request. (www.uog.edu/eo/PolicyDiability.pdf)

Course Schedule

Lecture/Laboratory

<u>Week</u>	<u>Topic</u>
1 (8/24)	Introduction
2 (8/31)	Annonaceae, Lauraceae, Piperaceae, Moraceae, Urticaceae, Casuarinaceae
3 (9/7)	Nyctaginaceae, Aizoaceae, Portulacaceae, Amaranthaceae, Polygonaceae, Clusiaceae (Guttiferae)
4 (9/14)	Tiliaceae, Elaeocarpaceae, Sterculiaceae, Bombacaceae, Malvaceae, Passifloraceae, Chenopodioideae (subfamily of Amaranthaceae)
5 (9/21)	Bixaceae, Caricaceae, Cucurbitaceae, Goodeniaceae, Capparaceae (Capparidaceae), Brassicaceae (Cruciferae), Moringaceae
6 (9/28)	Field trip-Campus Exam #1
7 (10/5)	Sapotaceae, Loganiaceae, Rosaceae, Fabaceae, Myrtaceae, Melastomataceae Combretaceae
8 (10/12)	Celastraceae, Euphorbiaceae, Rhamnaceae, Sapindaceae, Anacardiaceae, Rutaceae, Meliaceae,
9 (10/19)	Oxalidaceae, Araliaceae, Apocynaceae, Asclepiadaceae, Solanaceae, Convolvulaceae, Boraginaceae
10 (10/26)	Lamiaceae (Labiatae), Bignoniaceae, Verbenaceae, Acanthaceae, Rubiaceae, Asteraceae
(11/2)	All Soul Day
11 (11/9)	Field trip-Herbarium Exam #2
12 (11/16)	Commelinaceae, Cyperaceae, Pandanaceae, Poaceae (Gramineae), Bromeliaceae, Strelitziaceae, Musaceae
13 (11/23)	Heliconiaceae, Zingiberaceae, Arecaceae (Palmae), Araceae, Flagellariaceae Liliaceae, Amaryllidaceae
14 (11/30)	Agavaceae, Dioscoreaceae, Orchidaceae, Lycopodiaceae, Cycadaceae, Ferns,
15 (12/7)	FINAL EXAM DUE: Illustrations (one drawing per lecture/lab)

Plant Pathology

AL323/L Syllabus Fall 2015

AL323/L	TBD	
Instructor:	Andrea L. Blas	
Office: ALS rm. 217	Phone: 735-2140	ablas@triton.uog.edu
Office Hours:	TBD	

Course Catalog Description

AL323/L Plant Pathology & Laboratory (3 & 1 credits)

F/Odd Years

Principles underlying the nature and control of plant diseases that are related to crop production and horticulture are introduced in this course. Topics examined include the microorganisms and environmental conditions that cause disease, their dispersal mechanisms and reproductive cycles, and prevention and control options available to manage and contain plant disease. Concurrent enrollment in AL323 and AL323L is required. Courses meet for three hours of lecture and three hours of laboratory weekly. Prerequisites: AL101/L and AL102/L OR BI157/L and BI158/L.

Course Content

In this course, students learn through lecture and reading assignments about the causes of plant disease, how plant pathogens interact with their hosts and the environment, and the various strategies employed to reduce the impact of plant disease and prevent its spread. Ultimately, students will apply this information with critical thinking to discussions on the economic and social impacts of plant disease.

In the laboratory portion of the course, students are taught the basic skills required in the field of plant pathology. Students will gain practical experience in how to collect and prepare plant disease samples, microscopic techniques for viewing pathogens, aseptic techniques for handling pathogens, preparation of artificial culture media, techniques for culturing and identifying bacteria, fungi and nematodes, virus detection and plant disease diagnosis.

Expected Student Learning Outcomes (SLOs)

AL323/323L Student Learning Outcomes	Program Learning Outcomes	Institutional Learning Outcomes	Assessment Format
Student will be able to explain the principles underlying the nature of plant diseases that are related to tropical crop production and horticulture.	PLO1,2,3,4	ILO-1,2,3,5	Exam questions; group discussion; term paper
Student will be able to explain the symptoms,	PLO1,2,3,4	ILO-1,2,3,5	Exam questions;

causal agents and control strategies regarding plant diseases.			lab reports; group discussions; fact sheets.
Student will be able to explain the techniques involved in the study and management of tropical plant diseases.	PLO2,3,4,5	ILO-1,2,3,5	Exam questions; lab reports; group discussions; fact sheets.

ALS Program Learning Objectives (PLOs)

PLO1 - Disciplinary Knowledge and Skills: Graduates will demonstrate integrated knowledge in their chosen fields of study and related sciences.

PLO2 - Research Skills: Graduates possess critical thinking and analytical skills. Graduates are competent in basic procedures and safety protocols in conducting research. Graduates can use their knowledge and understanding of scientific concepts to explain and solve problems in their field.

PLO3 - Analytical Skills: Graduates can apply quantitative and/or qualitative analytical methods in agriculture and the life sciences.

PLO4 - Communication Skills: Graduates can gather and assess information and use it to create effective research and outreach communication media and oral presentations.

PLO5 - Ethics and Professionalism: Graduates understand the ethical principles underlying research, publication, and professional behavior. Graduates can demonstrate teamwork and networking skills, and understand the importance of providing correct credit for others' work.

PLO6 - Multicultural Competence: Graduates will develop cross-cultural respect and a foundation for lifelong multicultural competence.

PLO7 - Lifelong Learning and Integration of Knowledge from the Sciences and the Arts: Graduates can empower themselves through life-long learning to enhance their knowledge base, and demonstrate an ability to integrate knowledge from the sciences and the arts.

UOG Institutional Student Learning Objectives (ILOs)

For more information about the following ILOs, please refer to www.uog.edu/administration/academic-and-student-affairs/accreditation/assessment-and-program-review.

ILO-1. Mastery of critical thinking and problem solving

ILO-2. Mastery of quantitative analysis

ILO-3. Effective oral and written communication

ILO-4. Understanding and appreciation of culturally diverse people, ideas and values in a democratic context

ILO-5. Responsible use of knowledge, natural resources, and technology

ILO-6. An appreciation of the arts and sciences

ILO-7. An interest in personal development and lifelong learning

Evaluation and Grades

Students will be evaluated on their understanding of key concepts and discussion topics through writing assignments and an oral presentation. Writing assignments range from short answer responses to exam questions to a full term paper. Term paper progress points will be used in lieu of quizzes to

evaluate students' developing understanding of key terms and concepts throughout the semester. A short oral presentation will be used to evaluate students' critical thinking skills on their term paper topic. Periodic lab write-ups will be used to evaluate students' understanding of the lab techniques covered.

Grades for the lecture and lab sections are assigned independently of each other. It is possible to pass the lecture section (AL323) and simultaneously receive a failing grade in the laboratory section (AL323L) or vice versa. Students will be assessed through a combination of quizzes, exams, lecture and reading cards, term paper, oral presentation and laboratory reports.

***Note that Attendance is not required however Participation, in lab exercises and group discussions, is a graded component for the course.**

AL323 – Lecture Section		AL323L – Lab Section	
Evaluation Method	% of grade	Evaluation Method	% of grade
Exams (3)	60%	Term paper	30%
Oral presentation	20%	Progress points (8)	10%
Reading cards	5%	Lab reports (6)	30%
Focus cards	5%	Laboratory notebook	20%
Participation	10%	Participation	10%
Grading Scale (Lecture & Lab):			
A ≥ 90%; B 80-89%; C 70-79%; D 60-69%; F < 60%			

Required texts

Schumann and D'Arcy. 2010. Essential Plant Pathology, 2nd Ed. APS Press, St. Paul, Minnesota.

Academic Integrity Policy

Academic Integrity is about performing in your role as student in ways that are honest, trustworthy, respectful, responsible, and fair (see www.academicintegrity.org for more information). As a student, you will complete your academic assignments in the manner expected by the instructor. Academic dishonesty, including but not limited to cheating and plagiarism may result in suspension or expulsion from the University. Refer to the UOG Student Handbook and Code of Conduct for more information.

Tobacco Policy

The University of Guam is a tobacco-free campus and has a total ban on sales, smoking, distribution and use of tobacco and tobacco-based products on campus. UOG is committed to promoting the health, wellness and social well-being of the University Community, the people of Guam and the Western Pacific.

Special Needs (EEO/ADA)

If you are a student with a disability who will require an accommodation to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation from the EEO/ADA Office. If you have not registered with EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request.

Notification of Rights Under FERPA

revised March 8, 2016

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>.

COURSE SYLLABUS

AG 340 Spring 2016

1. INSTRUCTOR/BASIC INFORMATION

INSTRUCTOR: Dr. Robert L. Schlub
COURSE: AG 340 Pest Management (modified/ special project)
SEMESTER: Spring 2016
MEETINGS: AG Building Rm 125-B
Lecture: Monday 2:00-3:20,
Group and Self-study Monday 3:20-4:50
Laboratory: Wednesday 2:00-5:00, meet in Rm 125-B
OFFICE: ALS, Room 105
TELEPHONE: office 735-2089, lab 735-2094
EMAIL: rlschlub@gmail.com
OFFICE HOURS: upon request

2. CATALOG COURSE DESCRIPTION:

A capstone agriculture course that draws from the student's experience in soil science, horticulture, biology, entomology, and plant pathology to introduce the student to common agricultural pests (insects, plant pathogens and weeds) and their management. As part of the lecture portion of the course, students will be expected to pass the University of Guam Private Pesticide Applicators course and the Nation Plant Diagnostic Network (NPDN) First Detector Course. Laboratory portion of the course will include field trips, exercises in the Cooperative Extension Service Plant Diagnostic Clinic and lab work in pest identification and pest control.

3. RATIONAL FOR OFFERING THE COURSE

This is the foundation course for all agriculture elective courses dealing with plant science.

4. INTENDED STUDENT LEARNING OUTCOMES (LEARNING OBJECTIVES)

- a. Learn the basic principles of pest management
- b. Learn basic pest management terminology
- c. Develop pest management strategies
- d. Learn from hands-on real life experiences

5. CONCEPTUAL STRUCTURE OF THE COURSE

Pest management is the science of preventing, suppressing, or eradicating biological organisms that are causing a problem. Pest management practices may be classified according to the *approach* or the *method* used to deal with a pest problem. In terms of approach, pest management practices may be designed to (1) prevent a problem, (2) suppress a problem, or (3) eradicate a problem. In regard to method, pest management practices may be classified in a number of categories of which the most common are (1) chemical, (2) cultural and mechanical, (3) biological, and (4) legal.

The concepts of "*Integrated Pest Management*" (IPM) will be emphasized in this course as a preferred approach to controlling pests. This management strategy takes into consideration the ecology of the environment and all relevant interactions that pest management practices may have upon the environment in which one or more pest problems may exist. When IPM principles are applied to a given pest problem, it is generally assumed that environmental impact and economic risks have been minimized. Since IPM considers all applicable methods, it is also assumed that emphasis on chemical methods may be reduced when effective non-chemical alternative methods are available. As a result, implementation of IPM principles and practices is advocated in various federal and state regulations affecting pesticides. Section 11(c) of FIFRA specifically advocates that IPM techniques be included in training of certified applicators of restricted use pesticides.

6. FORMAT AND ACTIVITIES IN THE COURSE

A capstone agriculture course that draws from the student's experience in soil science, horticulture, biology, entomology, and plant pathology to introduce the student to common agricultural pests (insects, plant pathogens and weeds) and their management.

The lecture portion of the course will concentrate on the application of IPM management strategies to real life issues, which will be explored in the course's laboratory.

In addition to lecture assignments and tests, students will be expected to pass the University of Guam Private Pesticide Applicators course and the Nation Plant Diagnostic Network (NPDN) First Detector Course.

7. PARTIAL LIST OF COURSE MATERIALS

GCG-Guam Cucurbit Guide a UOG, CES publication

EPT-Eggplant, Pepper, and Tomato Production Guide for Guam UOG, CES publication

Pesticide applicator manual

ACW-Color Atlas of Common Weeds of Guam a UOG AES publication

Pesticide training manual

8. ADDITIONAL MATERIALS, RESOURCECES AND/OR EQUIPMENT

Students will be required to pay for applicators license exam. Optional is an additional payment for the actual license. Students who fail will be given an incomplete for AG 340 until such time they are reexamined and pass.

Students need proper clothing for field activities. Occasionally safety equipment may also be necessary, at which time students will be advised.

9. GRADING/COURSE REQUIREMENTS

a. two mid exams	100 points each	200 points
b. Highest nine Lab reports	30 points each	270 points
c. grade on applicator exam	100 points	100 points
e. FINAL	100 points	<u>100 points</u>
		670 total

*As part of the lecture portion of the course, students will be expected to pass the University of Guam Private Pesticide Applicators course and the Nation Plant Diagnostic Network (NPDN) First Detector Course.

10 METHOD OF EVALUATION AND GRADES

Grade:

A	90 % above
B	80 % - 89 %
C	70 % - 79 %
D	50 % - 69 %
F	below 49 %

11 COURSE POLICIES

Lab reports and a project report need to be completed on time. Grade will be reduced 5% with each day delayed.

Students are expected to attend class and demonstrate progress on lecture and lab assignments. Students are expected to notified instructor of absences. If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2243/2244/2971 to coordinate your accommodation request. (www.uog.edu/eo/PolicyDisability.pdf)

Laboratory Safety: I am committed to the safety of all students and employees associated with this course. To ensure that a safe environment is maintained all students will adhere to general safety guidelines and emergency procedures, as well as course-specific and activity-specific safety instructions provided by me and any teaching assistant. Laboratory safety and emergency procedures will be reviewed during the first class period and on a regular basis thereafter.

	Lecture	Laboratory	Reports due
Jan.	1/25 Introduction Pest control & IPM	1/27 Wood rot survey of ironwood at UOG	2/10
Feb	2/1 Wood rots	2/3 <i>Phellinus</i> inoculation, planting of tomato and ironwood seeds	2/10
	2/8 Plant disease and pathogen monitoring	2/10 building traps and monitoring stations	2/17
	2/15 Pest Management and math	2/17 Instrumentation, dilution and pollution	2/24
	2/22 Culturing of microorganisms Weed science	2/24 Weed ID and seed germination, pouring agar plates	3/2
	2/29 Midterm	3/2 Weed control experiments, <i>Ralstonia solanacearum</i> isolation, streaking	3/9
March	3/7 holiday off	3/8 assist with Charter day 8- 12:00, Lunch provided, No lab on Wed 3/9	
	3/14 insect pests and pathogen transmission	3/16 Inoculation of tomato and Casuarina seedlings with isolates	3/28
	3/21 Spring break off	3/23 off (evaluation of inoculated seedlings)	
	3/28 Farm bill and <i>R. solanacearum</i> and <i>Tuta absoluta</i> grants	3/20 (evaluation of inoculated seedlings) Guam farm Survey for <i>Tuta absoluta</i>	
April	4/4 Pest applicator information	4/6 Pest applicator Review (evaluation of inoculated seedlings)	
	4/11 Pest applicator exam	4/13 Vegetable production field trip collection of	
	4/18 Pest control with heat	4/20 Heat experiment	4/27
	4/25 Midterm	4/27 NPDN training, First detector exam at the end presentation	
May	5/2 Termites	5/4 Collection of termites from various trees	5/11
	5/9 IPM Vegetable production	5/11 Evaluation of <i>Phellinus</i> experiment	5/18
	Final Exam		

Related opportunities			
4 day Diagnostic workshop by Dr. Schlub and Dr. Raghuwinder Singh of LSU			
May 24 Tuesday	May 25 Wednesday	May 26 Thursday	May 26 Friday

University Of Guam
College of Natural and Applied Sciences (CNAS)
Bachelor of Agriculture Program
Course Syllabus

1. COURSE INFORMATION:

Course Number, Title & Credits: AG-342 Principles of Agricultural Engineering (4 credits)

2. INSTRUCTOR AND COURSE SCHEDULE INFORMATION:

INSTRUCTOR: Dr. P. Singh

OFFICE: ALS building, Agricultural Engineering Lab. - 303

OFFICE HOURS: T&TH: x:xxPM - x:xx PM or by appointment
(Ph: 735-2135; email: psinghedu@gmail.com or Sign-up sheet at the lab)

CLASS HOURS: Lecture: M&W x:xxpm - xx:xxpm
Lab: Fri xx:xx PM – xx:xx PM

PREREQUISITES: This is an applied course. You should have finished your lower level agriculture, particularly soils and horticulture/agronomy, courses. In addition, you need to review your basic algebra, trigonometry, and physics to help you with this course. MA161a or concurrent enrollment.

3. COURSE DESCRIPTION: The course introduces the engineering principles in agriculture as applied to land measurements, surveying and map making, farm water management, irrigation scheduling, drip irrigation systems, farm machinery and equipment for farm operations, farm structures, and farm electrification. Emphasis is placed on learning how to apply the engineering principles for solving real-life problems in agriculture from calculating how many hours it will take to plow a field to how long to irrigate a crop. The laboratory portion of the course includes outdoors and indoors activities for a hands on learning experience in the area of surveying, irrigation, farm machinery, and farm electricity. There are three hours of lecture and three hours of laboratory weekly.

4. RATIONAL FOR OFFERING THE COURSE:

Modern agriculture uses machines and equipment in every facet of its operations from preparing fields for planting, to irrigating, to spraying, to harvesting and post-harvesting. Therefore, it is imperative that agricultural graduates gain knowledge about the variety of equipment available for various farm operations and obtain a basic understanding of the operating principles, uses and efficiency of operations of these equipment and basic design considerations in animal housing structures.

5. LEARNING OBJECTIVES: The first section introduces to you the tools and equipment needed, the procedures of their use, data recording formats, and calculations for land measurements – distances and elevations. Upon completion of this section you will be able to carryout three different types of leveling surveys –differential leveling, profile leveling, and topographic leveling.

Farm water management section introduces you to on-farm irrigation system. Specific engineering objectives that you will be able to accomplish upon completion of this section are:

- List and describe various irrigation methods
- Microirrigation system parts, operation, and maintenance
- Advantages and disadvantages over other irrigation methods
- Calculate irrigation water requirement and irrigation schedules of agricultural crops

The Farm Power and Machinery section introduces you to farm equipment and its use. The basic principles you should be able understand after completing this section include:

- Operation of internal combustion engines
- Work, power, and energy
- Power trains and speed reduction gears

The Farm Structures section introduces how to calculate heat load and ventilation requirements for animal structures and housing. And in the Rural Electrification section you learn the basics of electricity –voltage, current, and resistance, and how to measure voltage and current in household circuits.

6. TEXT BOOKS/REFERENCES:

Students will carry out RFK Library “Ocean” system search & internet search using keywords from the course outline and make a short list of the text books and references available. The list will be finalized in the class. However, most of the reading material will be given as handouts.

**7. Course Policies:
Lecture Activities:**

Attendance at lectures is critical. There will be material and explanation presented in the lectures that may not be found in the references and handouts. There will announced and pop quizzes at the start or towards the end of a lecture. There will be no make-up quizzes. Make-up exams will be given only if consent of the instructor is obtained prior to a test date.

Students are encouraged to read assigned reading materials before coming to the class and take detailed notes during each class. Homework is essential practice in problem solving and must be done independently.

Lab Activities:

Attendance in the labs is mandatory. Laboratory sessions provide a hands on learning experience on most topics covered in the lectures. Here students learn the use of equipment, familiarize themselves with various parts, setup procedures, even disassemble small engines and learn from inside-out various parts and the principles of their operation as a reinforcement of the material covered in the class.

Students are required to prepare and submit a report for each lab.

8. GRADING:

There will be three term examinations (12 points each), one final examination (30 points), quizzes (4 points), and home assignments (10 points). Lab reports: 20 points.

Grading will be as follows:

Grade:	A	> 90 points
	B	80 - 89 points
	C	70 - 79 points
	D	60 - 69 points
	F	below 59 points

9. Special Needs:

A Student with special needs must register with the EEO/ADA Office and make arrangements through that office. Their contact numbers are 735-2244/2971/2243 (TTY). Students who can not meet the requirements of any laboratory activity including field trips need to discuss the problem with the instructor several days ahead of time.

UOG disability policy: Students are expected to make timely requests for accommodation, using procedures posted at the following UOG web site: <http://www.uog.edu/eo/PolicyDisability.pdf>

10. Drop Dates:

Students are required to follow the posted UOG policy found in the catalog. In general a student can withdraw from a course

“voluntarily”, without notifying the instructor, until mid October.
Under certain circumstances a student can withdraw from classes as late as the end of the semester.

11. COURSE SCHEDULE/CALENDAR:

1. 4 weeks

Principles of farm water management. Types of irrigation systems, water requirements of crops and animals. Microirrigation systems, their operation and maintenance

*** First Term Exam***

2. 4 weeks

Introduction to surveying, grading, and earthwork calculations

*** Second Term Exam***

3. 4 weeks

Principles of farm power and machinery. Various types of engines, harvesting equipment, plows, disc harrows, power sprayers, ...etc.

*** ThirdTerm Exam***

4. 4 weeks

Principles of farm structures and farm electrification. Types of structures, governing design principles for animal housing and storage structures. Electrical requirements of farm equipment. Single phase and three phase power supply.

*** Final Exam***

Laboratory Exercises

Note: Some labs will take more than one lab class to finish.

Lab #	Description
1	Components of a microirrigation system (Requires trip to Yigo Station)
2	Setting up a drip irrigation system (Requires trip to Yigo Station)
3	Agricultural weather stations (Requires trip to Yigo Station)
4	Differential Leveling
5	Profile Leveling
6	Contour Leveling
7	Work and power measurements for farm implements
8	Internal combustion engines
9	Gear ratios and farm equipment (May require trip to Yigo Station)
10	Reading psychrometric charts
11	Insulations and heat flow
12	Measuring resistance, current and voltage

Special Accommodations:

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request.

Note1:

Get to know your class mates. It is important to enter into discussions to clarify ideas and concepts presented here. You can always email/contact the instructor to seek assistance on the material for this course. Attendance is very important. Never leave the class before understanding the material that is presented.

Note2:

Update yourself about steps/precautions to take to help prevent the spread of H1N1 virus among the fellow students and the Guam community as a whole. Seek the advice of your physician or follow public health advisories on this issue.

Course SLOs:	Program Learning Outcomes (PLOs)	University Learning Outcomes	Method of Assessment

		(ILOs)	
Carry out three types of leveling surveys - differential leveling, profile leveling, and topographic leveling.	1. Disciplinary Knowledge 2. Quantitative Skills 3. Research/laboratory skills 4. Communication Skills	ILO-1 ILO-2 ILO-3 ILO-5	Lab reports, homework, assignments, quizzes and tests.
List and describe various irrigation methods, microirrigation system parts, operation, and maintenance of drip irrigation systems.	1. Disciplinary Knowledge 2. Quantitative Skills 3. Research/laboratory skills 4. Communication Skills	ILO-1 ILO-2 ILO-3 ILO-5	Lab reports, homework, assignments, quizzes and tests.
Calculate irrigation water requirement and irrigation schedules of agricultural crops.	1. Disciplinary Knowledge 2. Quantitative Skills 3. Research/laboratory skills 4. Communication Skills	ILO-1 ILO-2 ILO-3 ILO-5	Lab reports, homework, assignments, quizzes and tests.
Demonstrate knowledge of the principles of operation of internal Combustion engines, work, energy, power, power trains and speed reduction gears.	1. Disciplinary Knowledge 2. Quantitative Skills 3. Research/laboratory skills 4. Communication Skills	ILO-1 ILO-2 ILO-3 ILO-5	Lab reports, homework, assignments, quizzes and tests
Calculate heat load and ventilation requirements for animal structures and housing entary probabilities.	1. Disciplinary Knowledge 2. Quantitative Skills 3. Research/laboratory skills 4. Communication Skills	ILO-1 ILO-2 ILO-3 ILO-5	Homework, assignments, quizzes and tests

Course SLOs:

AG 342 SLO-1 Carry out three types of leveling surveys - differential leveling, profile leveling, and topographic leveling.

AG 342 SLO-2 List and describe various irrigation methods, microirrigation system parts, operation, and maintenance of drip irrigation systems.

AG 342 SLO-3 Calculate irrigation water requirement and irrigation schedules of agricultural crops.

AG 342 SLO-4 Demonstrate knowledge of the principles of operation of internal Combustion engines, work, energy, power, power trains and speed reduction gears.

AG 342 SLO-5 Calculate heat load and ventilation requirements for animal structures and housing

UG Tropical Agricultural Science Objectives:

1. Disciplinary Knowledge Graduates will be able to apply their agricultural knowledge and skills in the production of agricultural products using best management practices and addressing locally important issues.

2. Quantitative Skills: Graduates apply numerical methods in research design, financial analysis, pesticide and fertilizer application, irrigation and field setup and use computers for analysis of data and preparation of reports of results.

3. Research/laboratory skills: Graduates are able to apply safe laboratory and field procedures to help them diagnose and solve problems in agriculture.

4. Communication Skills:	Graduates are able to gather and summarize data, and use it to create effective lab, scientific reports, and oral presentations.
5. Technological Literacy:	Graduates are able to determine and assess the usefulness and appropriateness of existing and new technologies in their professional endeavors.
6. Professionalism:	Graduates are able to integrate ethical principles, professional knowledge, and team work in addressing current agricultural, natural resources and environmental issues.

Institutional Expected Student Learning Outcomes

UOG Expected Student Learning Outcomes December 2008

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

ILO1: Mastery of critical thinking & problem solving

ILO2: Mastery of quantitative analysis

ILO3: Effective oral and written communication

ILO4: Understanding & appreciation of culturally diverse people, ideas & values in a democratic context

ILO5: Responsible use of knowledge, natural resources, and technology

ILO6: An appreciation of the arts & sciences

ILO7: An interest in personal development & lifelong learning

Syllabus for General Entomology AG/BI 345 - Fall 2015

October 4, 2015

1 Place and Time

Labs and lectures will take place in ALS 124, which is the teaching lab in the Agriculture and Life Sciences Building.

- Lectures: Tuesdays and Thursdays, 11:00-12:20
- Labs: Mondays 12:30-3:20

2 Instructor and Contact Information

Dr. Aubrey Moore

- Cell phone: 686-5664
- Office: 735-2086
- Email: amoore@uguam.uog.edu
- Office: 105H ALS
- Office hours: by appointment

3 Course Description (from the UoG Catalog)

This course is an overview of insect biology with emphasis on fundamental problems encountered by insects, and the structural and functional adaptations used to overcome these problems. The laboratory focuses on insect identification. An insect collection is required. The course meets for three hours of lecture weekly. Prerequisites: BI157-157L or AG109 or AG281.

4 Required Text Book

Borror, D. J. and R. E. White 1970. A Field Guide to Insects. Houghton Mifflin ISBN 0-395-91170-2.

5 Curricular Mapping

5.1 Institutional Learning Objectives (from the UoG Catalog)

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

1. Mastery of critical thinking and problem solving
2. Mastery of quantitative analysis
3. Effective oral and written communication
4. Understanding and appreciation of culturally diverse people, ideas, and values in a democratic context
5. Responsible use of knowledge, natural resources, and technology
6. An appreciation of the arts and sciences
7. An interest in personal development and lifelong learning

5.2 Program Learning Objectives (from the UoG Catalog)

5.2.1 Learning Objectives for Agriculture Students

Disciplinary Knowledge: Graduates apply their agricultural knowledge and skills in the production of agricultural products using best management practices and addressing locally important issues such as island pocket economies, conservation, invasive species and endangered species problems. They use their knowledge and understanding of scientific concepts to diagnose and solve problems in agricultural fields.

1. Quantitative Skills: Graduates apply numerical methods in research design, financial analysis, pesticide and fertilizer application, irrigation and field setup and use computers for analysis of data and preparation of reports of results.
2. Research/laboratory skills: Graduates are competent in basic laboratory procedures and safety in the laboratory and the field. Students will develop applied thinking skills to help them formulate testable hypotheses and create effective experimental designs.

3. **Communication Skills:** Graduates can gather and assess evidence and use it to create effective lab and scientific reports, and oral presentations. They will develop the ability to identify, summarize and effectively communicate current issues to given audiences.
4. **Technological Literacy:** Graduates are competent at applying technological skills to their chosen work. They are also competent in the use of analog and digital equipment used in modern agricultural systems. Graduates effectively judge the usefulness and appropriateness of existing and new technologies in their professional endeavors.
5. **Professionalism:** Graduates work effectively together in teams in laboratory, community and field settings while following ethical principles in analysis and communication. Graduates apply their gained knowledge in addressing natural resource and social issues.

5.2.2 Learning Objectives for Biology Students

Disciplinary knowledge and skills: Graduates use their knowledge and understanding of essential concepts to solve problems in ecology, genetics, molecular biology, systematics, and evolution. They can apply their biology knowledge and skills to locally important issues such as island biogeography, conservation, and endangered species problems. They apply relevant concepts from chemistry and physics to biology problems.

1. **Quantitative skills:** Graduates apply numerical methods in research design, and use computers for analysis manipulating and modeling biological data.
2. **Research/laboratory skills:** Graduates are competent in basic biology procedures and safety in the laboratory and the field; they formulate testable hypotheses and create effective experimental designs using their knowledge, understanding, and practical experience of scientific instruments.
3. **Communication skills:** Graduates use scientific literature and diagrams as a source of information, properly cite sources and avoid plagiarism, and create text and graphics to communicate results effectively through print and oral presentations. They collect and assess evidence and use it to create effective arguments in writing scientific reports and proposals.
4. **Digital Literacy:** Graduates use and process information in multiple formats via computer. Graduates are competent in the following computer skills as related to their science work: desktop competencies, word processing, presentation, and data retrieval and manipulation. Graduates effectively judge the usefulness and accuracy of external sources of information.
5. **Professionalism:** Graduates work effectively together in teams in a laboratory and field settings and follow ethical principles underlying scientific research and pub-

lication. Graduates understand and apply the values and limitations of scientific research in addressing public policy issues.

5.3 Student Learning Outcomes for AG/BI 345

Upon completion of AG/BI 345, General Entomology:

1. Students will be able to accurately identify any insect on Guam to the taxonomic level of Order and in most cases to Family.
2. Students will be familiar with the behavior and biology of common insects on Guam.
3. Students will know how to collect insects and preserve them as museum quality specimens with proper labeling.
4. Students will have an understanding of the importance of insects in ecosystem function.
5. Students will be aware of negative impacts of invasive species on Guam's ecosystems and economy and will be certified as First Detectors by the National Plant Diagnostics Network.
6. Students will know how to find detailed information on insects in online resources and in the scientific literature.

6 Schedule

6.1 Lecture Schedule

1. Introduction to Entomology - August 20
2. Insect Biodiversity and Taxonomy - August 25
3. Insect Biodiversity in Micronesia - August 27
4. Invasion of the Land - September 3
5. External Insect Morphology - September 8
6. Internal insect Morphology - September 10
7. Metamorphosis - September 15
8. Insect Orders with Complete Metamorphosis - September 27
9. Guest Lecture (Roland Quitugua): Coconut Rhinoceros Beetle - September 22

10. Guest Lecture(Jesse Bamba): Insect Pests of Agriculture on Guam - September 24
11. Insect Orders with Incomplete Metamorphosis I - September 29
12. Insect Orders with Incomplete Metamorphosis II; Review for Exam 1 - October 1
13. Exam 1 - October 6
14. Insect Ecology – Population Dynamics - October 8
15. Insect Ecology – Predator-prey relationships and biological control - October 13
16. Insect Ecology – Semiochemicals - October 15
17. Insect Ecology – Social Insects - October 20
18. Insect Ecology – Pollination - October 22
19. Insect Ecology – Mimicry - October 27
20. Insect Invasions on Guam I - October 29
21. Insect Invasions on Guam II - November 5
22. First Detector Training; Review for Exam 2 - November 10
23. Exam 2 - November 12
24. Economic Entomology and Pest Control - November 17
25. Urban Entomology - November 19
26. Medical Entomology - November 24
27. Forensic Entomology - November 26
28. Insects as a Human Food Source - December 1
29. Silk - December 3
30. Review for Exam 3 - December 10

6.2 Lab Schedule

1. August 24 - Intro to insect collecting – tools of the trade
2. August 31 - Special techniques – spreading moths and butterflies; pointing small insects
3. September 07 - Independent work on collection
4. September 14 - Independent work on collection
5. September 21 - Independent work on collection
6. September 28 - Independent work on collection
7. October 05 - Insect Photography
8. October 12 - Proposals for Research Projects
9. October 19 - Field Trip to Yigo Ag. Expt. Stn.
10. October 26 - Independent work on collection and/or research project
11. November 02 - Independent work on collectionand/or research project
12. November 09 - Independent work on collectionand/or research project
13. November 16 - Independent work on collectionand/or research project
14. November 23 - Research Project Presentations
15. November 30 - Independent work on collection
16. December 07 - Turn in Collections for Grading

7 Grading

Activity	Date/Deadline	Maximum Points
Exam 1	October 6	15
Exam 2	November 12	15
Exam 3	TBD	15
Research Project - written report	November 23	10
Research Project - oral presentation	November 23	5
First Detector Training	December 7	5
Insect Collection	December 7	35
Total		100

8 Course Guidelines

8.1 Course Web Site

- All handouts and other course resources will be available on the Ag/BI 345 web site at <http://guaminsects.net/AGBI345SITE>.

8.2 Examinations

- Examinations are cumulative, meaning that you may be asked questions on any topics covered between the start of the course and the date of the exam.
- All exams are 'open book' and you are free to use digital devices and online resources.
- Part of each exam will be spent identifying insect specimens.

8.3 Research Project

- Research projects will be done by teams of 1, 2 or 3 people.
- Each team will make an oral presentation to propose their project during the October 12 lab period.
- Each team will submit a written research report and make an oral presentation during the November 23 lab period.

8.4 First Detector Training

During this course you will learn about impacts of invasive species on Guam and other islands. You will be trained and certified as 'First Detector' via a lecture and completion of online training modules provided by the National Plant Diagnostics Network at <https://firstdetector.org/static/index.html>.

8.5 Insect Collection

- You will be required to collect, preserve at least 35 insect species, with species from at least ten orders.
- We will not collect immature insects and soft bodied specimens which must be preserved in alcohol.
- We will use an iNaturalist project at <http://www.inaturalist.org/projects/ag-bi-345-f15> to record data for each specimen in the collection. I will provide software to print a catalog and pin labels.

- Collect adults only; spread Lepidoptera wings and mount minute insects on paper points
- You will receive a maximum of 35 points for your collection. You will get one point for each specimen which:
 - is properly preserved (moths and butterflies spread; insects too small to pin on paper points)
 - has an observation record in iNaturalist
 - points will not be given for specimens which do not comply to the above items
 - points will not be given for duplicate specimens with the same species

University of Guam
College of Natural and Applied Sciences
CF/AG 389: Extension Programming and Planning
Fall 2013 Semester

Course Number & Title: CF/AG 389: Extension Programming and Planning
Credit Hours Semester/Year: 3 - Fall 2012
Instructor: Gena A. Rojas, M.P.A.
Days/Time & Location: Tuesday & Thursday: 5:30-6:50 pm,
Office Location & Contact: SBPA Room 122
Tel: 735-2532 (office) - E-mail: grojas@ugam.uog.edu
Office Hours: By Appointment (drop-ins welcome)

I. COURSE DESCRIPTION: This course reviews development and educational philosophy of the Cooperative Extension Service in the U.S., Guam, and the Western Pacific. Extension educational programs, planning and development methods, teaching tools, and related topics are explored.

II. PROGRAM LEARNING OUTCOMES:

Acquire a knowledge base in family resource management with the following objectives:

- Demonstrate criterion level knowledge of family diversity in the global community.
- Demonstrate criterion level knowledge of family resource management processes.

Acquire a knowledge base of the community context in which family functioning and development take place with the following objectives:

- Demonstrate criterion level knowledge of the effects of context (social, economic, political, historical, & cultural environment) on family functioning & development.

Acquire professional skills with following objectives:

- Demonstrate criterion level skills in written communication.
- Demonstrate criterion level skills in oral communication.
- Demonstrate a basic level of computer literacy.
- Demonstrate basic competence in “helping” skills.
- Demonstrate basic research skills.

Apply knowledge and professional skills to address issues encountered in professional settings with the following objectives:

- Demonstrate critical thinking skills and problem solving abilities.
- Demonstrate commitment to professional values and ethical behavior.
- Demonstrate a satisfactory level of preparation for the world of work and responsibility for continued professional

III. STUDENT LEARNING OUTCOMES: Upon completion of this course, students will be able to:

1. Describe the Cooperative Extension Service as an educational agency
2. Discuss the history, philosophy and objectives of the Cooperative Extension Service
3. Explain how the University of Guam Cooperative Extension Service is organized, administered and funded.
4. Describe various areas and programs within Extension.
5. Explain intergovernmental and inter-nongovernmental relationships in program planning, delivery and evaluation
6. Develop a program plan applying appropriate planning tools
7. Critically assess local and national Extension Programs

8. Recognize potential careers in the Cooperative Extension Service.

IV. UOG INSTITUTIONAL STUDENT LEARNING OUTCOMES: For more information about the following ILOs, please refer to www.uog.edu/administration/academic-and-student-affairs/accreditation/assessment-and-program-review.

ILO-1 Mastery of critical thinking and problem solving

ILO-2 Mastery of quantitative analysis

ILO-3 Effective oral and written communication

ILO-4 Understanding and appreciation of culturally diverse people, ideas and values in a democratic context

ILO-5 Responsible use of knowledge, natural resources, and technology

ILO-6 An appreciation of the arts and sciences

An interest in personal development and lifelong learning

V. CLASS METHODOLOGY

Lectures, class discussions, case studies, skill building exercises, field assignments, reading assignments, participation, class projects and other formats, as needed.

VI. COURSE REQUIREMENTS DESCRIPTION: See class schedule for assignment and exam due dates

1. **Attendance and Participation (10%)** Students are required to attend class and effectively participate. Class attendance is mandatory and attendance will be recorded during each class meeting. **Three or more unexcused absences will result in zero points for this requirement.** For an absence to be excused; (excused absences are limited to illness, or death in the family – documentation required for either) the instructor must be notified BEFORE class starts. You can send an email or call the office and leave a message. Habitual absences will not be tolerated.

2. **Two exams of equal weight (50%)** will be given during the course of the semester.

a. The first exam or mid-term requires students to develop a situational review, problem statement, and a justification of need on one of five USDA National Institute and Food and Agriculture priority areas. Students will conduct national and local literature review, use of statistics, application of problem to a localized area, identification of tools/trends to demonstrate your knowledge of the issue chosen. The problem statement is the first step to program planning and is a key element to a well-designed program. The statement should be a clear, concise, well-supported statement of the problem to be addressed.

b. The second exam, or final, will be the actual writing and development of a program. It requires students to use logic models, SMART objective statements, identifying inputs, outputs, activities and outcomes.

Guidance and a grading matrix will be provided two weeks before each exam.

3. **Problem Solving Cases Memos (20%)**: A fundamental skill in planning is synthesizing information to effectively identify issues of target populations (ex: childhood obesity, healthy aging, youth delinquency). Using selected case studies, students are required to submit three (3) memoranda per case teaching case. Students will analyze the issue, identify the audience, define the subject, determine the purpose and in some cases, provide solutions or communicate ideas on the issue.

4. **Research Critiques (20%):** Students are required to research and review two articles from two different journals (listing at end of syllabus). You will read and critique each article using critique guidelines attached to the syllabus.

ASSIGNMENTS ARE DUE VIA EMAIL BY 8 PM ON THE DAY/DATE INDICATED. LATE ASSIGNMENTS WILL NOT BE ACCEPTED!

Postponed classes: Should classes be postponed, notice will be given in advance or such notice will be posted on the classroom door. In such an event, the student will be responsible to prepare for the postponed class session as well as next session's assignment.

VII. GRADING SCALE

Final grades will be based on the following course requirements.

1. Attendance and active participation	10%
2. Two exams of equal weight	50%
3. Three Case Memos	20%
4. Two Research Article/Media Critique	20%
<hr/>	
TOTAL	100%

The following grading scale will be used:

93-100%	= A
92-84	= B
83-78	= C
70-77	= D
69 and below	= F

VIII. COURSE MATERIALS

Text: *Education Through Cooperative Extension* (Second Edition). Seevers, B., Graham, D. Gamon, J. and Conklin, N. (2007)

Additional Readings: Additional readings will be required from course handouts and case studies.

IX. CONTACT AND CONSULTATION

Consultation may be by telephone at 735-2026 or by appointment. Please contact instructor to schedule an appointment. Office location: Agriculture and Life Sciences Bldg. Room 228

X. STATEMENT OF ACCOMMODATION : "The University of Guam will make every effort to provide reasonable accommodations for students with a disability. If you are a student with a disability who will require accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the University of Guam's EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 to coordinate your accommodation request."

XI. PLAGIARISM: “In line with our School’s program intent in developing ethical professionals, students must adhere to honesty and giving credit (where applicable) to cited sources on exams and assignments, respectively. Note that when making reference to published works (secondary data, etc.), you must provide appropriate credit to your sources. Use the APA Manual as a reference to make proper citations and how your reports are to be prepared. Absolutely no credit/points will be granted for works where cheating (exams) and plagiarism are observed. Plagiarism will result in automatic failure of the course and possible dismissal from the University.”

XII. FATAL ERROR POLICY (Outcome Assessed): Effective Written Communication Skills): If any submitted writing assignment has more than 3 obvious grammatical citation errors, the instructor will return the assignment to the student to make the appropriate corrections; otherwise, the assignment will not be graded.

XIII. TOBACCO POLICY:The University of Guam is a tobacco-free campus and has a total ban on sales, smoking, distribution and use of tobacco and tobacco-based products on campus. UOG is committed to promoting the health, wellness and social well-being of the University Community, the people of Guam and the Western Pacific.

XIV. NOTIFICATION OF RIGHTS UNDER FERPA: The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>.

*CF/AG 389CLASS SCHEDULE • 2013 Fall Semester • TTH – 5:30-6:50

Month	Date	Description
Aug	22	General Class Orientation, Introductions, Discussion of course syllabus and Assignments
	27, 29	Foreword and Chapter 1: The Scope of Cooperative Extension: Mission and Philosophy Chapter 2: The origin of Extension Work Returning to Our Roots – Kellogg Commission Report
Sept	3, 5	Chapter 3: Organization, Structure, and Administration of Extension Programs
	10, 12	Chapter 4: Program Areas in Cooperative
	17, 19	Chapter 5: Developing Extension Programs Research Journal Article Critique #1 (9/19)
	24, 26	Chapter 5 (Continued) Program Planning University of Wisconsin Problem Solving Memo #1 (9/26)
Oct	1, 3	Chapter 5 (Continued)
	8, 10	Chapter 6: The Teaching-Learning Process
	15, 17	Chapter 6: Continued Problems Solving Memo #2 (10/17)
	22, 24, 30	First Exam (Mid-Term)
	31	First Exam Due
Nov	5, 7	Chapter 7: Extension Teaching and Delivery Methods
	12, 14	Chapter 8: Evaluating Extension Programs W.K Kellogg Foundation Evaluation Handbook Research Journal Article Critique #2 (11/14)
	19, 21	Chapter 9: Management of Volunteer Programs Problem Solving Memo #3 (11/21)
	26, 28	Thanksgiving Break
Dec	3, 5	Chapter 10: Extension Experience Around the Globe
	10, 12	Review of Second Exam
	17	Second Exam Due (Final)

Course Requirement	Due Date	Points
Problem Solving Case Memos	September 26, October 17 November 21	15 each
Research Critique Articles	September 19 and November 14	25 each
First Exam Midterm Exam	October 31	100
Final Examination	December 17	100

CF/AG3898
Fall Semester 2013
RESEARCH ARTICLE CRITIQUE GUIDELINES

Every professional has journals which research in the field is reported. Most practitioners out “in-the-trenches” rarely read or are even aware of these journals. The purpose of this assignment is to acquaint you with the professional literature in the field, to help you focus on important aspects of studies, and to think of ways in which research can be applied. The purpose of this exercise is to acquaint you with the research that has been done and to consider applications of the results within your area of interest.

Select one article to read from a peer-reviewed journal on a topic that interests you. Prepare a short 2- page critique of the article. Paper must be typed, double-spaced, Times New Roman 12 pt. font. Remember correct grammar and spelling are a part of the grade (See Item X of the syllabus).

Your Synopsis/Critique must be in the following format:

- I. Biographical Detail
 1. Author
 2. Title
 3. Sources
 4. Date of Article
 5. online link if accessed online
- II. Objectives – What did the study attempt to achieve
 1. Demographics or Description of Sample
 2. Methods and Procedures
- III. Major Findings of the study – What is the gist of the contents?
- IV. Critical Evaluation of information – your thoughts. Was there substantiation of the idea by good logic? (if – then). How adequate are the supporting arguments and reasoning? Degree to which authors point of view agrees with your own.
- V. Implications – so what? What good is the study? How can we use it? What are the implications in the realm of developing programs and in organizations?

In addition to the written report, you will be asked to give a brief oral report on the research during class.

UOG Electronic Database: To access UOG Library electronic journals and database you will use your UOG library barcode as your login and a password you have created at the library. If you do not have a password you must visit the library to receive a barcode and create your password. Once you have entered go to “electronic journals collection” choose EBSCO electronic journals.

Here are few samples of journals; of course, you may choose others you find that are of interest.

Journal of Extension <http://www.joe.org> You should become familiar with the Journal of Extension. If you want to find a specific topic, the search engine works well. Job listings are also maintained within Extension and land grant institutions.

Journal of Agricultural Education <http://pubs.aged.tamu.edu/jae> is not an on-line journal like the Journal of Extension. However, past issues are on-line. While many people might assume the articles are related to formal teaching of agriculture, many of the articles are about extension, agricultural literacy and more.

Journal of Agricultural Education and Extension <http://www.bib.wau.nl/ejae/> is an international journal that focuses on agricultural and extension education globally This international journal focuses on changes in agricultural knowledge and action systems.

Article Critique Grading

Gena A. Rojas

Contact: 735-2056 ● Email: grojas@uguam.uog.edu

*Course Syllabus and Course Schedule subject to revisions at Instructor's discretion

CF/AG 389
TTH: 5:30-6:50

Name: _____

I. Format Followed, Document Contained All Headings (Biographical Information, Objectives, Major Findings, Critical Evaluation , Implications	3	2	1						
II. Objectives: Concisely and succinctly stated. Objectives clearly state what the study is attempting to achieve.	5.55	4.5	4	3.5	3	2.5	2	1	
III. Major Findings: Clear statement of the core intent. Description of study is concise with quantitative and qualitative information.	5.5	5	4.5	4	3.5	3	2.5	2	1
IV. Critical Evaluation: Critique provides good support for critique. Statements are substantiated with examples and/or other data/information. Critique provides good analysis of supporting arguments and reasoning.	5.5	5	4.5	4	3.5	3	2.5	2	1
V. Implications: Critique identifies either importance or non-importance of study. Identifies how the study can be used, provides a clear link between study and future or on-going activities.	5.5	5	4.5	4	3.5	3	2.5	2	1
TOTAL									

Final – Outcome and Objectives Grading
 CF/AG 389
 TTH: 5:30-6:50

Name: _____

Objectives are specific and measurable.	22 = Specific with use of performance verbs. 10 = Moderately specific 5 = Vast; too complex
Objectives are achievable, and time bound	22= Objective meets a gap in current service and knowledge and have clear time limits. 10=Objectives to be achieved and measured but unclear and not concise 5 = Objectives cannot be attained and are not realistic. No clear sense of time limitations
Outcomes demonstrate relation to the problem statement. Demonstrate clear changes in knowledge, actions and conditions	21=Outcomes match problem to be addressed. Outcomes show clear changes in knowledge, actions and conditions. Use of proper terms 10 = Outcomes have moderate link to problem to be addressed. Vague link between issue and applicability to locality 5 = No link or support to issues to be addressed
Inputs, Outputs and Activities. Inputs are realistic and well considered. Activities match and in line with stated objectives.	20 = Clear distinction between inputs, outputs and activities. Activities align with problem statement. 10 = Vague understanding between inputs, outputs and activities. Limited understanding between outcomes and outputs. 5 = No understanding of inputs, outputs and activities. Outputs confused with outcomes

TOTAL 85 POINTS

Laboratory Teaching Assistantship AL392* Syllabus – Fall 2016

* Note: Beginning Fall 2016, AL392 replaces AG392 and CF392.

AL392	TBD
Instructor:	TBD
Office: ALS rm. XXX	Phone: 735-XXXX <<<email address>>>
Office Hours:	[insert instructor office hours]

Course Catalog Description

AL392 Laboratory Teaching Assistantship (1 credit)

FA/SP

This course provide practical educational experience in undergraduate Agriculture and Life Sciences courses. Prerequisites: Completion, with a grade of “B” or better, of the course for which the assistantship is offered, junior standing and consent of instructor.

Course Content

This course is designed for individual students with emphasis on gaining practical experience with instruction and lab exercise setup as well as development of the student’s interpersonal communication skills. Laboratory TAs attend and supervise student laboratory sessions. Duties/responsibilities may include: attend lectures; complete the pre-lab activities or reference material; assist in grading laboratory assignments according to a rubric; review and enforce safety regulations; demonstrate laboratory techniques; respond to student correspondence; and meet with the course instructor to report on laboratory activities.

Expected Student Learning Outcomes (SLOs)

- Student will be able to demonstrate and prepare a proper setup for each laboratory exercise or activity.
- Student will be able to describe the scientific concepts of each laboratory exercise or activity.
- Student will be able to provide proper guidance and safety procedures to participants of the laboratory exercise or activity.
- Student will be able to demonstrate interpersonal communication skills with the instructor and participants of the laboratory exercise or activity.

Evaluation and Grades

Final evaluation and grade, according to the attached standardized rubric, is given by the course instructor. Standard measures include attendance, ability to follow instruction for lab setup and cleanup, demonstration of interpersonal communication skills with the instructor and lab students, and ability to follow proper safety procedures.

Required texts

none

ALS Program Learning Objectives (PLOs)

PLO1 - Disciplinary Knowledge and Skills: Graduates will demonstrate integrated knowledge in their chosen fields of study and related sciences.

PLO2 - Research Skills: Graduates possess critical thinking and analytical skills. Graduates are competent in basic procedures and safety protocols in conducting research. Graduates can use their knowledge and understanding of scientific concepts to explain and solve problems in their field.

PLO3 - Analytical Skills: Graduates can apply quantitative and/or qualitative analytical methods in agriculture and the life sciences.

PLO4 - Communication Skills: Graduates can gather and assess information and use it to create effective research and outreach communication media and oral presentations.

PLO5 - Ethics and Professionalism: Graduates understand the ethical principles underlying research, publication, and professional behavior. Graduates can demonstrate teamwork and networking skills, and understand the importance of providing correct credit for others' work.

PLO6 - Multicultural Competence: Graduates will develop cross-cultural respect and a foundation for lifelong multicultural competence.

PLO7 - Lifelong Learning and Integration of Knowledge from the Sciences and the Arts: Graduates can empower themselves through life-long learning to enhance their knowledge base, and demonstrate an ability to integrate knowledge from the sciences and the arts.

UOG Institutional Student Learning Objectives (ILOs)

For more information about the following ILOs, please refer to www.uog.edu/administration/academic-and-student-affairs/accreditation/assessment-and-program-review.

- Mastery of critical thinking and problem solving
- Mastery of quantitative analysis
- Effective oral and written communication
- Understanding and appreciation of culturally diverse people, ideas and values in a democratic context
- Responsible use of knowledge, natural resources, and technology
- An appreciation of the arts and sciences
- An interest in personal development and lifelong learning

Academic Integrity Policy

Academic Integrity is about performing in your role as student in ways that are honest, trustworthy, respectful, responsible, and fair (see www.academicintegrity.org for more information). As a student, you will complete your academic assignments in the manner expected by the instructor. Academic dishonesty, including but not limited to cheating and plagiarism may result in suspension or expulsion from the University. Refer to the UOG Student Handbook and Code of Conduct for more information.

Tobacco Policy

The University of Guam is a tobacco-free campus and has a total ban on sales, smoking, distribution and use of tobacco and tobacco-based products on campus. UOG is committed to promoting the

health, wellness and social well-being of the University Community, the people of Guam and the Western Pacific.

Special Needs (EEO/ADA)

If you are a student with a disability who will require an accommodation to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation from the EEO/ADA Office. If you have not registered with EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request.