

Catalogue  
of

**UPLB SHORT COURSES  
and TRAINING PROGRAMS**

**2007**

## **UPLB Research and Extension**

The University of the Philippines Los Baños (UPLB) is involved not only in instruction, but also in research and extension. Its intellectual resources, through research, continue to generate new ideas and technologies designed to benefit various clientele. Through the University's extension function, these ideas and technologies are disseminated to intended beneficiaries with the goal of attaining social change and development.

Among the regular extension activities of UPLB is the offering of non-degree Short Courses and Training Programs which provide practical knowledge and skills in various subject matters. These courses are offered annually mostly during summer months of April, May, and June but they can also be offered any time of the year upon the request of an organization or a group of interested parties.

This catalogue lists the various short courses and training programs offered by the UPLB units. In addition to the listed courses, UPLB also designs and conducts capability-building, continuing education programs to tailor-fit the needs of the requesting organizations. For more information and inquiries, please contact the Office of the Vice Chancellor for Research and Extension (OVCRE), UP Los Baños, College, Laguna, telephone numbers (049) 536-5326/2354 and telefax (049) 536-3341 or send email message to [ovcre\\_sctp@yahoo.com.ph](mailto:ovcre_sctp@yahoo.com.ph).

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## Animal Sciences

### **Duck Nutrition and Management**

Nutrient requirements and principles of duck nutrition, housing and management practices.

April 16-17  
 P1,500 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Ms. I.O. Aycocho  
 Tel. No. 536-2547/3426

### **Duck Egg Processing (Balut, Salted Eggs and Other Duck Egg Products)**

Principles of egg preservation and hands on processing of salted eggs, balut and other duck egg products.

April 18-19  
 P1,500 per person  
*Min no. of participants:* 5  
*Coordinator:*  
 Ms. A.L. Mariño  
 Tel. No. 536-2547/3426

### **Hatchery Management Operation (Poultry)**

Principles involved and techniques for effective hatchery management operation.

April 20  
 P600 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. A.L. Mariño  
 Tel. No. 536-2547/3426

### **Quail Production**

Management practices (stock selection, housing, feeds and feeding, disease prevention) and the economics of quail production.

April 23  
 P600 per person  
*Min. no. of participants:* 2  
*Coordinator:*  
 Ms. A.L. Mariño  
 Tel No. 536-2547/3426

### **Health Management of Chickens and Ducks**

Common diseases of chickens and ducks with emphasis on prevention and control (biosecurity, vaccination, medication, disinfection and simple diagnostic tests).

April 24-25  
 P1000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. NL De Castro  
 Tel. No. 536-2547/4326

### **Brooding and Growing Management of Chickens**

Care and management of chickens (meat and egg type) during and after brooding stage

April 26-27  
 P1,000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. A.L Mariño  
 Tel. No. 536-2547/3426

### **Layer Management (Poultry)**

Care and management of pullets during and after brooding and growing stages (culling, and forced molting techniques).

May 2-3  
 P1,000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. B.R. Garcia  
 Tel. No. 536-2547/3426.

### **Breeder Management**

Care and management of breeders for efficient production of hatching eggs.

May 7-8  
 P1,000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. B.R.Garcia  
 Tel. No. 536-2547/3426

### **Slaughtering and Fabrication of Farm Animals**

Basic principles in selection and management of animals prior to slaughter and procedures in slaughtering and fabrication of farm animals for supermarket style of retailing meats.

May 9-10  
 P1,500 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Mr. RF Sandoval.  
 Tel. No. 536-2547/3426

### **Ruminant Production and Management**

Management practices (stock selection, housing, feeds and feeding, disease prevention) and the economics of cattle, goat and sheep production.

May 8-9  
 P1,500 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. I.O..Ayocho  
 Tel. No. 536-2547/3426

### **Advances in Ruminant Nutrition**

Recent trends in ruminant nutrition and feeding practices.

May 16  
 P1,000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
 Ms. I.O.Aycocho  
 Tel. No. 536-2547/3426

### **Basic Swine Production**

Principles of swine production suited for participants starting this business.

May 21-22  
 P1,500 per person  
*Min. no. of participants:* 8  
*Coordinator:* Ms. B.R. Garcia  
 Tel. No. 536-2547/3426

### **Swine Reproduction and Artificial Insemination**

Principles and practices in swine reproduction and manipulative skills in artificial insemination, semen collection and evaluation, handling and storage, heat detection, estrous synchronization, pregnancy diagnosis and proper management of pregnant sow.

May 23-24  
 P1500 per person  
*Min. no. of participants:* 2  
*Coordinator:*  
 Ms. NL De Castro  
 Tel. No. 536-2547/3426

### **Advances in Swine Nutrition**

Recent trends in swine nutrition and feeding practices.

May 16  
 P1,500 per person  
*Min. no. of participants:* 5  
*Coordinator:* Ms. I.O.Aycocho  
 Tel. No. 536-2547/3426

### **Intensive Training Course on Data Evaluation Methods in Animal Science R & D Projects**

Basic principles and practical background and experience involved in the planning, design and implementation, analysis and presentation of results of animal experiments and field studies

By arrangement (anytime of the year)  
 P5000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Mr. RF Sandoval  
 Tel. No. 536-2547/3426

### **Feed Quality Control**

Physical and chemical evaluation methods and techniques to determine the quality of feed ingredients.

May 21-25

P2,500 per person

*Min. no. of participants:* 10

*Coordinator:* Ms. NL De Castro

Tel. No. 536-2547/3426

### **Ration Formulation**

Principles involved in actual formulation of rations for livestock and poultry using most commonly available feed ingredients and actual test cost feed formulation using the computer

May 28-June 1

P2000 per person

*Min. no. of participants:* 10

*Coordinator:* Mr. RF Sandoval

Tel. no. 536-2547/3426

### **Meat Processing I. Processing of Tocino, Corned Beef, Fresh Sausage and the Like**

Principles, methods, and marketing of tocino, corned beef, fresh sausage and the like.

May 16-18

P1,500 per person

*Min. no. of participants:* 10

*Coordinator:* Ms. NL De Castro

Tel. No. 536-2547/3426

### **Meat Processing II. Processing of Meat Loaves, Hotdogs and Similar Products**

Principles, methods and marketing of comminuted products such as meat loaves, hotdogs, hamburgers and the like.

May 21-23

P1,500 per person

*Min. no. of participants:* 10

*Coordinator:* Ms. I.O Aycocho

Tel No. 536-2547/34.26

## **Dairy Science**

### **Dairy Production and Management (Dairy Cattle)**

Principles of dairy production, management of dairy farms under Philippine conditions, animal health, feeds and feeding, pasture management, dairy economics and hands-on exercises in proper animal handling, identification, and milking.

May 14-18

P1,500 per person

*Min. no of participants:* 6

*Coordinators:* Ms. M.S.Galang

Mr. N.B.Velasco

Tel. No. 536-2202/2205

### **Forage Production and Conservation**

Basic principles and practices in forage production (establishment, maintenance, utilization and conservation) and dry season feeding strategies to augment feed supply

April 10-14  
 P1,500 per person  
*Min. no. of participants:* 6  
*Coordinators:*  
 Ms. M.S. Galang  
 Mr. M.M.Loresco  
 Tel. No. 536-2202/2205

### **Dairy Products Manufacture at Home**

Principles of processing of different dairy products which can be manufactured at home. These products are liquid milk, yoghurt, ice cream, white cheese, mozzarella cheese, processed cheese and pastillas de leche. Also include topics on cheese coagulant and sensory evaluation of dairy products.

April 23-27  
 P2,500 per person  
*Min. no. of participants:* 6  
*Coordinators:*  
 Ms. M.S. Galang  
 Ms. I.V.Gomez  
 Tel No. 536-2202/2205

### **Ice Cream Processing**

General milk treatment, ingredients, calculation and processing of ice cream mix, freezing and hardening, different varieties of ice cream, judging and quality control.

May 7-10  
 P3,000 per person  
*Min. no. of participants:* 5  
*Coordinators:*  
 Ms.M.S.Galang  
 Ms. O.C.Emata  
 Tel. No. 536-2202/2205

### **Goat Production and Management**

Principles of goat production, management of goat farms under Philippine conditions, breeding, feeds and feeding, herd health management, housing, economics of goat farming, and goat's meat and milk products.

April 30—May 4  
 P1,500 per person  
*Min. no. of participants:* 6  
*Coordinator:* Ms. ED Beltran  
 Tel. No. 536-2202/2205

### ***For Animal and Dairy Sciences Courses***

***Please make reservations at least 2 weeks before the training schedule.***

#### ***For reservations, please contact:***

##### ***Animal Science Courses***

Ms. Amelia L. Mariño  
 Ms. Adelfa A. Natividad  
 Tel/Fax : (049) 536-2547/3423

##### ***Dairy Science Courses***

Ms. Myrna S. Galang  
 Ms. Margarita B. Quillooy  
 Tel. No.: (049) 536-2202/2205

## Food Science

### **Peanut Processing**

Peanut processing principles, quality control and hands-on processing of different peanut products such as sugar-coated peanuts, peanut bar, peanut brittle, peanut butter, nougat, mazapan de mani, polvoron de mani, peanut candy and pastillas de mani

May 8  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Mr. V.P. Dia  
 Tel. No. 536-2303

### **Mango Processing**

Principles and methods of processing, quality control, materials and equipment sourcing, cost-analysis and hands-on processing of mango in syrup, puree, nectar, jam, pickles and chutney, dehydrated mango and mango roll.

April 12-13  
 P1,500 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. E.V. Carpio  
 Tel. No. 536-2312

### **Coconut Processing**

Principles of coconut processing, quality control, and hands-on processing of coconut such as coco jam, espasol, makapuno preserve, makapuno candy, bukayo and buko pie.

April 26  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Mr. V.P. Dia  
 Tel. No. 536-2312

### **Soybean Processing**

Principles of soybean processing, quality control and hands-on processing of soybean such as soymilk, taho, and tokwa

May 15  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Mr. V.P. Dia  
 Tel. No. 536-2303

### **Meat Processing**

Principles and methods of meat preservation, quality control, product costing and hands-on processing of tocino, tapa, pork ham, chicken ham, bacon, longanisa, corned beef, siomai and other ground meat products.

April 24-25  
 P1,500 per person  
*Min. no. of participants:* 4  
*Coordinator:*  
 Dr. R.C. Mabesa  
 Tel. No. 536-2358

### **Buko Processing**

Principles and methods of processing, quality control, materials and equipment sourcing, cost-analysis and hands-on processing of buko juice, buko in syrup, dehydrated buko strips and buko roll.

April 17  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. E.V. Carpio  
 Tel. No. 536-2312

### **Fish Processing**

Principles and methods of fish preservation, quality control, product costing and hands-on processing of dried fish, smoked fish, fish sauce, bottled bangus in oil, squid ball and fish ball.

May 16-17  
 P1,500 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. R.C. Mabesa  
 Tel. No. 536-2358

### **Sensory Evaluation of Foods**

Principles and procedures on the different sensory testing methods

May 3-4  
 P1,500 per person  
*Min. no. of participants:* 5  
*Coordinator:* Dr L. B. Mabesa  
 Tel. No. 536-2358

### **Pineapple Processing**

Principles and methods of processing, quality control, materials and equipment sourcing, cost-analysis and hands-on processing of pineapple in syrup, jam, rum pineapple, dehydrated pineapple, and pineapple roll

April 26-27  
 P1,500 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr.E.V.Carpio  
 Tel. No. 536-2312

### **Vegetable Processing**

Principles and hands-on exercises on vegetable preservation, dehydration, canning, freezing and pickling

April 19-20  
 P1,500 per person  
*Min. no. of participants:* 4  
*Coordinator:*Dr.L.B. Mabesa  
 Tel. No. 536- 2358

### **Fruit Wine Production**

Principles and methods of wine production from some tropical fruits.

May 10  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. E.I. Dizon  
 Tel. No. 536-2312

### **Banana Processing**

Principles and methods of processing, quality control, materials and equipment sourcing, cost analysis and hands-on processing of banana ketchup, chips, flour, fries.

April 16  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. E.V.Carpio  
 Tel. No. 536-2312

### **Sanitary Practices in Food Processing and Food Establishment**

Principles and practices of hygiene and sanitation and safety in food processing.

May 24-25  
 P1,000 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. R.C. Mabesa  
 Tel. No. 536-2358

### **Vinegar Production**

Principles and methods of vinegar production from coconut water and tropical fruits.

May 9  
 P500 per person  
*Min. no. of participants:* 4  
*Coordinator:* Dr. E.I. Dizon  
 Tel. No. 536-2312

### **GMP and HACCP Program Development for Small and Medium Food Enterprises**

Principles and methods of developing GMP and HACCP programs for small and medium food enterprises.

May 22-23  
 P1,000 per person  
 Min. no. of participants: 4  
 Coordinator:  
 Dr. R.C. Mabesa  
 Tel No. (049) 536-2358

## Crop Science

### Horticulture

#### Plant Propagation and Nursery Management of Economic Plants

Seed selection, seedling and seedbed preparation, asexual propagation, and establishment and maintenance of a nursery.

May 14-18  
P2,000 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
Dr. Domingo.E. Angeles  
Tel. No. 536-2448/2478

#### Fruit Orchard Establishment and Maintenance

Principles and practices of preparation and selection of planting materials, land preparation and planting, fertilization system of culture, irrigation, pruning, flower induction and pest control.

May 7-11  
P2,500 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
Dr. Domingo E. Angeles  
Tel. No. 536-2448/2478

#### Tissue Culture of Banana

General principles of in vitro propagation of banana, media preparation, proper sterilization techniques, establishment of explants, multiplication, rooting and requirements on the establishment of a Tissue Culture Laboratory.

May 21-25  
P3,500 per person  
*Min. no. of participants:* 5  
*Coordinator:*  
Dr. Domingo E. Angeles  
Tel. No. 536-2448/2478

### Plant Breeding

#### Micropropagation of *Musa spp.*

Theoretical background and practical application of tissue culture techniques for the propagation of *Musa spp.*

By arrangement (5 days)  
whole year round  
P10,000 per person  
*Min. no. of participants:* 6  
*Coordinator:*  
Marilyn M. Beltran  
Tel. No. (049) 536-3304  
Fax: (049) 536-3438

### **Nursery and Field Establishment of Tissue Cultured Bananas**

Theoretical background and practical aspects of growing tissue cultured bananas that include potting out, nursery establishment, field planting and cultural management practices in growing tissue cultured bananas. Useful for nurserymen and banana growers/farmers. Includes training kit with *in vitro* meriplants and established seedlings ready for field planting.

By arrangement ( 2 days),  
whole year round P4000 per  
person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

### **Hybrid Papaya Production**

Theoretical and practical aspects of producing Sinta, a hybrid papaya; include seed handling, pricking, planting, cultural management, harvesting, postharvest practices and marketing; also features trip to a papaya growing area or to a participant's possible planting site for evaluation and planting recommendations.

By arrangement (3 days)  
whole year round

P6,000 per person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

### **Organic Production of Vegetable Crops**

Theoretical and practical aspects of producing vegetable crops under organic conditions that cover preparation of organic fertilizer, pesticides, proper cultural management practices and suitable farming systems,.

By arrangement (2 days)

P4,000 per person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (o49) 536-3304/3438

### **Corn Seed Production**

Theoretical and practical aspects (with some field exercises) of producing high quality corn seeds that include planting, cultural management, harvesting, processing, postharvest practices, marketing and seed distribution. This training is a requirement for the accreditation of IPB-UPLB hybrid and open pollinated corn seed growers

By arrangement (3 days)

Whole year round

P7,000 per person

*Min. no. of participants: 5*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304 /3438

### **Seed Production of Vegetables and Legumes**

Theoretical and practical aspects of vegetable production for seed purposes that covers site selection, planting, cultural management practices, harvesting, postharvest handling and storage, economics of seed production and marketing; includes an exposure trip to other neighboring research institutions. This training is a requirement for the accreditation of IPB-UPLB vegetable and legume seed growers.

By arrangement (5 days)

P10,000 per person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

### **SNAP Hydroponics**

Theoretical and practical aspects of hydroponics with emphasis on setting-up and running a SNAP hydroponics system; identification of different nutrient deficiency and toxicity symptoms; basic concepts in plant nutrition relevant to hydroponics vegetable production; includes starter kit nutrient solution, established seedlings and styrofoam box and cups.

By arrangement (2 days)

P4,000 per person

*Min. no. of participants: 6*

*Coordinators:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

### **Training on molecular and serological techniques in plant disease diagnosis (2 modules)**

Theoretical and practical aspects of disease detection and diagnosis using nucleic acid and antibody-based techniques; useful for producing disease-free planting materials of new crop varieties or tissue cultured plantlets; for plantation managers, agriculturists, technicians, and teachers

By arrangement ( 4 days /

module) whole year round

P10,000/module/person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

### **Evaluation of economically important crops for resistance to major diseases**

Theoretical and practical aspects of identifying/screening crop varieties with resistance to important diseases; useful to seed growers and producers

By arrangement (4 days)

Whole year round

P5,000 per person

*Min. no. of participants: 6*

*Coordinator:*

Marilyn M. Beltran

Tel. No. (049) 536-3304/3438

## Postharvest Technology

### **Postharvest Handling of Fresh Fruits, Vegetables and Cutflowers**

Theoretical and practical aspects of handling fresh fruits, vegetables and cutflowers after harvest, including methods of determining harvest maturity, packing house operations, grading and standardization, temperature management and storage techniques, ripening regulation, packaging and transport, food safety and quality assurance, postharvest disease control and minimal processing of fresh cuts; includes hands-on technology demonstration.

April 25-27  
 P2000 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Dr. D.R. del Carmen  
 Tel. No. 536-3138/ 3259

### **Design and Establishment of Postharvest Infrastructure Facilities**

Basic principles of design, layout and location of a packinghouse facility for fresh fruits, vegetables and cutflowers. Introduction to packinghouse operations and equipment e.g. sizer/sorter, washing tanks, drying racks; includes design exercise for a basic packinghouse wherein participants can work on a design problem related to their commodity.

May 2-3  
 P1200 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Dr. D.R. del Carmen  
 Tel. No. 536-3138/ 3259

### **The ABC's of Handling Fresh Fruits and Vegetables**

Awareness of the basic aspects of postharvest handling, simple handling techniques to maintain good quality of the produce and minimize product deterioration during distribution process up to retail display.

April 23  
 P600 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Dr. D.R. del Carmen  
 Tel. No. 536-3138/3259

### **Cutflower Handling and Storage**

Principles of the various handling and storage techniques i.e. harvest maturity, packaging, sorting and grading, pulsing and conditioning use of flower preservatives, storage (dry pack and wet storage techniques) and temperature management.

April 24  
 P600 per person  
*Min. no. of participants:* 10  
*Coordinator:*  
 Dr. D.R. del Carmen  
 Tel. No. 536-3138/ 3259

## Biological Science

### Institute of Biological Sciences

#### Introductory Beekeeping

Bee biology, pathology, pollination and management, apiary establishment and product development

April 23-28  
 P5,000 per person  
*Min. no. of participants: 10*  
*Coordinator:*  
 Dr.C.R. Cervancia  
 Tel. No. 536-2517

#### Short Course on Herbal Medicine

Proper utilization of medicinal plants for primary health care; includes identification and propagation of medicinal plants, proper preparation of herbal products and short lectures on the bases of the healing properties and advances in medicinal plant research. Focus is on laboratory work for medicinal plant identification, chemotaxonomy, histochemistry and initial detection of its biologically active constituents.

April 25-27  
 P1,000 per person  
*Min. no. of participants: 5*  
*Coordinator:*  
 Dr..L.B. Cardenas  
 Tel. No. 536-2807  
 Fax: (049) 536-2517  
 Venue: Rms C-225 &  
 MBB-14  
 Institute of Biological  
 Sciences (IBS) Bldg.

### Museum of Natural History

#### Techniques in the Preservation of Selected Biological Specimens

Collection, preparation and preservation of higher vascular plants (as herbarium specimens), fungi (pickled or dried specimens), birds and mammals (taxidermy), reptiles and amphibians (wet preserved), insects and small arthropods (pinned collection of temporary slide-mounts) and some other Invertebrates will be shown with hands-on exercises; course is useful to biology teachers, students and hobbyists.

April 17-20  
 P1500 per person  
*Min. No. of participants: 5*  
*Coordinator:* Sheryl A. Yap  
 Tel No. (049) 536-2864  
 Telefax (049) 536-3669  
 Venue: MNH Bldg., Upper  
 (Forestry) Campus

### **Basics of Biological Nomenclature for Science Writers and Editors**

Basic knowledge of taxonomy and biological nomenclature, including standard suffixes for taxonomic categories, proper citation of scientific names and common errors and usage will be discussed; requirements for taxonomic publications and the basic differences between the rules (International Codes) of plant, bacterial and animal nomenclature will be given; course is useful to editors and staff of popular and technical scientific publication, science teachers and science communication students.

June 4-5  
 P1,000 per person  
 Min. no. of participants: 5  
 Coordinator: Dr I.L.Lit, Jr  
 Tel. No. (049) 536-2864  
 Telefax; (049) 536-3669  
 Venue:  
 MNH Bldg.  
 Upper (Forestry) Campus

### **Getting to Know the Spiders**

Spiders make up a considerable portion of the Philippine fauna but little is known about them. This course provides basic information on studying, collecting, preserving and identifying spiders through lectures and brief field trip. Target course participants are high school and elementary science teachers, eco-tourism coordinators, college students and hobbyists.

April 12-13  
 P1000 per person  
*Min. no. of participants: 5*  
*Coordinator:*  
 Prof. AL..Barrion-Dupo  
 Tel. No. (049) 536-2864  
 Telefax: (049) 536-3669  
 Venue: MNH Bldg.  
 Upper (Forestry) Campus

### **The Ex-Tree Challenge: Getting to Know Forest Trees**

A crash course on dendrology for non-foresters as well as a refresher course for those with background in forestry. Familiarization with forest trees will be useful for science teachers, eco-tour organizers, hobbyists, conservation and environment enthusiasts as well as nature lovers and the general public.

April 2-4  
 P1500 per person  
*Min. no. of participants: 5*  
*Coordinator:*  
 Dr. M.L.Castillo  
 Tel. No. (049) 536-2864  
 Telefax: (049) 536-3669  
 Venue: MNH Bldg.,  
 Upper (Forestry ) Campus

### **Biodiversity for Beginners**

Introduction to Biological Diversity and its conservation and the underlying and related concepts and principles, including species richness, evolution and natural selection, systematics/taxonomy, of introduced organisms. Includes lectures on insects and other arthropods, vertebrate wildlife and vascular plants. Field trips to a secondary forest (in Mt. Makiling) and film showings will enhance lectures and discussions. The course is beneficial to high school biology and elementary science teachers, ecotourism and travel agents, environmentalists and non-biology college students.

April 10-11  
P2000 per person  
*Min. no. of participants: 5*  
*Coordinator:*

Phillip A. Alviola  
Tel. No. (049) 536-2864  
Telefax: (049) 536-3669  
Venue: MNH Bldg.,  
Upper (Forestry) Campus

## Biotechnology

### **Antimicrobial Assay**

Lecture and hands-on training on detection of antimicrobial properties of certain sample and antimicrobial assay

May 21-25  
P6,500 per person  
*Min. no. of participants: 4*

### **Microbiological Analysis of Water**

Lecture and hands-on training to determine the Heterotrophic Plate Count (HPC) of water samples, Most Probable Number (MPN) techniques of determining coliforms, differentiate *Escherichia coli* from other coliform bacteria, detect presence of fecal streptococci and *Pseudomonas aeruginosa*.

April 16-20 (5 working days)  
P5,500 per person  
*Min. no. of participants: 4*

### **Microbial Preservation Techniques**

Basic concepts and methodologies involved in long term preservation of microorganisms, procedures on how to monitor the viability and stability of the preserved microbial strains; the course consists of lectures and hands-on training.

May 29-30 (2 working days)  
P3,500 per person  
*Min. no. of participants:* 4

### **Basic Electron Microscopy: Sample Preparation Techniques for Biological Specimens**

Basic principles of electron microscopy (scanning or transmission or both), electron microscope parts and functions, sample preparation techniques of biological specimen and photomicrography. Includes hands-on technology demonstration.

April 16-20 or 23-27 (SEM or TEM) 5 working days for each  
April 16-27 for SEM & TEM  
P10,000 per person – Scanning Electron Microscopy (SEM) 5 working days  
P15,000 per person – Transmission Electron Microscopy (TEM) 5 working days  
P25,000 per person – both SEM & TEM 10 working days  
*Min. no. of participants:* 4

### **Bio-Organic Fertilizer Production**

Introduction to Bio-Organic Fertilizer (BOF) technology, structural and equipment requirement, investment analysis in the setting-up of BOF plant and hands-on training on the mass production of bacterial and fungal inocula.

April 16-18 or May 9-11  
(3 working days)  
P3,000 per person  
*Min. no. of participants:* 5

### **Tissue Culture of Orchids and Banana**

Lecture and hands-on training on tissue culture techniques in orchids and banana.

May 21-25  
(5 working days)  
P6000 per person  
*Min. no. of participants:* 3

### **Detection of Bacterial Pathogens Through PCR**

Recent techniques in detection of bacterial pathogens in food, principles involved in PCR techniques, preparation of culture media, extraction of DNA using standard and quick extraction method, PCR, gel electrophoresis and documentation of PCR results.

May 16-18  
( 3 working days)  
P4,500 per person  
*Min. no. of participants: 3*

### **Detection of Plant, Food and Feed Pathogens and Mycotoxins Using Monoclonal Antibodies**

Screening of pathogens and mycotoxins using enzyme-linked immunosorbent assay (ELISA) and hands-on training on the basic techniques in the immunological detection of specific pathogens from plant, food and feed samples.

May 21-24  
(3 working days)  
P6,000 per person  
*Min. no. of participants: 3*

### **Mass Production of *Ganoderma lucidum***

The course aims to orient trainees on nature and application of ganoderma, collect and isolate ganoderma and evaluate the different applications of ganoderma.

May 14-18  
(5 working days)  
P2,500 per person  
*Min. no. of participants: 7*

### **For the Biotechnology Courses, you may contact:**

**Training Coordinator:** Lerma L. Moran  
Tel. No. (049) 536-1576  
CP#: 09279749076

## Chemistry

### Proximate Analysis of Foods and Feeds

Proximate analysis is a standard methodology employed in the food and feed industry. The knowledge, analytical techniques and instrumentation to conduct standard method will be taught with hands-on exercises in the handling and actual analysis of foods and feeds. Includes theory, principles and standard methods in the analysis of moisture content, ash, crude protein, crude fiber, crude fat and nitrogen free extract (NFE). Also covers analysis of carbohydrates and reducing sugars .

May 8-17 (8 working days)  
 Lecture: 8-10 am  
 Laboratory: 10 am-4pm  
 P5,000 per person  
 Min. no. of participants: 5  
 Coordinator:  
     Josefina L. Solivas  
 Tel No. 536-2359/2220

### Water Quality Analysis

Water quality assessment and analysis is an important component of environmental monitoring. The basic knowledge, analytical techniques and instrumentation to conduct this analysis will be taught with hands-on exercises in the sampling and actual analysis of different water samples for various usage will be done. Combined lecture and laboratory sessions to impart theory, principles and standard methods in the analysis of pH. Total Suspended Solids, Dissolved Oxygen, Heavy metal content and other physico-chemical parameters needed in proper water quality assessment. Quality assessment based on standard limits set by DENR for water samples (depending on use) will be used.

May 23-June 1 (8 working days)  
 Lecture: 8-10 am  
 Laboratory: 10am– 4 pm  
 P5,000 per person  
 Min. no. of participants: 5  
 Coordinator:  
     Josefina L. Solivas  
 Tel. No. 536-2359/2220

## Economics

### Summer Program in Economics

An intensive course designed to provide rigorous training in microeconomics, macroeconomics, mathematical techniques and basic econometrics for prospective students wishing to pursue graduate studies in Economics, Agricultural Economics and allied fields. Open to non-economist professionals in the public and private sectors who would like to be refreshed with the rudiments of economic principles and its tools of analysis.

April 2-May 30 (2 months)  
 8-12nn; 1-3 pm  
 P7,800 (per local participant)  
 US\$750 (per foreign participant)  
 Min. no. of participants: 10  
 Coordinator:  
 Mr. Rodger M. Valientes  
 Tel. No. 536-2505  
 Fax: 536-3641  
 E-mail: econ@laguna.net

## Agribusiness Management

### Master in Management Summer Workshop

A month-long program on management theory and practice, embodied in three learning modules is designed to equip Master of Management applicants as well as non-MM participants with the necessary knowledge and tools for developing or further enhancing their management abilities.

Module IA: Key Management Tools and Concepts (MTC)

Module IB: Basic Agribusiness (for MM-ABM applicants)

Module II: Accounting (ACT)

Module III: Quantitative Business Tools (QBT)

April 20-May 20  
 P7,000 (per local participant)  
 P10,000 (per foreign participant)  
 P2,500 per module (per non-MM)  
 Schedule:

#### **Fridays**

1:30-7:30 pm (MM-ABM)

4:00-7:30 pm (non MM-ABM)

#### **Saturdays/Sundays**

8:30-12:00 nn

2:00-5:30 pm

Coordinator:

Prof. Jeanette A.B. Madamba  
 Tel.No. 536-2846

## Human and Family Development

### Summer Reading and Writing Readiness Program

For children who will enroll in kindergarten to prepare them for reading and writing

April 16-May 12  
9-11 am (Mon-Fri)  
P1,200 per person  
*Coordinator:*  
Prof. Marison .R. Dy  
Tel. No. 536-5089/2480

### Planning of Learning Experiences for Preschoolers

For development workers, degree holders (other than education) who are interested in working with children and to acquire knowledge and skills in planning learning experiences for physical motor, social, emotional and intellectual development of the young children

April 23-27  
Time: 1-5 pm  
P3,000 per person  
Min. no. of participants: 15  
*Coordinator:*  
Dr. Sue Liza .C. Saguituit  
Tel. No. 536-2480

### Basic Clothing Design

Elements and principles of clothing construction, figure measurements, construction of basic patterns and garments

April 23-27  
Time: 1-5 pm  
P1,000 per person  
Min. no. of participants: 8  
*Coordinator:*  
Prof. Melissa P. Ferido  
Tel. No. 536-2480

## Communication

### Extension Publications Writing and Production

For extension workers, information officers, educators, and media practitioners to learn the basic techniques and principles of writing, editing, layouting, and producing various extension communication materials such as leaflet, newsletter, and primer, among others.

May 14-18  
 P5,000 per person  
 Min. no. of participants: 5  
 Coordinator: Dr. M.M. Suva  
 Tel. No. 536-2511 local 219

## Research Project Management

### Training-Workshop on R&D Proposal Preparation

Aims to equip participants with basic skills in R&D proposal preparation to include identification, formulation and prioritization of researchable areas, developing conceptual framework and research design, searching and organizing literature and information.

5 days\*  
 P5,000 per person  
 Min. no. of participants: 10

### Training-Workshop on Goal Oriented Project Planning Focusing on Logical Framework for R&D Projects

Aims to enable participants to construct logical framework for an identified R&D project as aid to a work plan using objective-oriented and participative situational analysis to formulate project /program matrix and system for monitoring and evaluation. Course suited in any type of projects be it in R&D community-based, environment and other developmental work.

5 days\*  
 P5,000 per person  
 Min. no. of participants: 10

**Training-Workshop on Research Project Implementation and Management**

Aims to equip participants with managerial knowledge and skills in research project implementation and management particularly in supervision and delegation, conflict management fostering interdisciplinary team work, organizational communication, management of change, and leadership. Course is designed for new and incumbent project leaders.

5 days\*

P5,000 per person

Min. no. of Participants: 10

**The above RPM courses may be arranged anytime of the year.**

Coordinator: Ms. Lily O. Borlaza

Tel. No. (049) 536-5326

Fax: (049) 536-3341

email: ovcre\_sctp@yahoo.com.ph

## Forestry

### **Agroforestry Feasibility Study Preparation**

A crash course consisting of hands-on preparation of a feasible agroforestry enterprise that the participants want to establish in their respective sites. Components of feasibility study like market study, technical analysis, financial analysis, economic analysis and operational analysis will be emphasized through preparation of actual cases.. Course is designed for community workers and technical staff who are engaged in the preparation of projects that require ex-ante analysis.

3 days duration\*  
P3,000 per person  
Minimum no.  
of participants: 5

### **Agroforestry Farm Planning and Design**

Focuses on the compatibility of the people and upland resources in terms of protection and provision of livelihood opportunities., Included also are planning and designing of sustainable agroforestry system using various tools developed. Course is designed for community development workers and technical staff who are engaged in the planning and designing of agroforestry project and farms.

3 days duration\*  
P3,000 per person  
Minimum no.  
of participants: 5

### **Understanding Wood**

Consists of lecture and laboratory sessions on the chemical, physical and mechanical properties of wood that affect its utilization to include discussion on major chemical constituents of wood, moisture content, density and specific gravity, shrinkage and swelling, strength and rheological properties among others, supplemented by laboratory exercises to explain behavior of wood in service. Course is designed for supervisors or technical personnel of wood-based companies as well as research and academic staff of forestry related institutions.

5 days duration\*  
P5,000 per person  
Minimum no.  
of participants: 5

### **Wood Identification**

Consists of lecture and laboratory sessions on the classification and identification of commercially important Philippine hardwoods to include identification techniques based on gross and anatomical features of wood and hands on laboratory exercises and sample preparation. Course is designed for supervisors or technical personnel of wood-based companies as well as research and academic staff of forestry related institutions.

5 days duration\*  
P5,000 per person  
Minimum no.  
of participants: 5

### **Principles of Wood Protection**

Consists of lecture and laboratory sessions on the principles and techniques of wood protection against decay and wood boring insects, wood protecting chemicals and treatment processes, and properties of treated wood; includes a field trip to commercial wood treating plant. Course is designed for supervisors or technical personnel of wood-based companies involved in various aspects of wood preservation specifically, pest control operators, quarantine officers and research or academic staff who wish to gain basic understanding of methods and techniques of protecting wood against biological agents of deterioration.

5 days duration \*  
P5,000 per person  
Minimum no.  
of participants: 5

### **Wood Seasoning**

Consists of lecture and laboratory sessions designed to provide basic training in the drying of Philippine hardwood; includes the principles and processes involved in drying of wood reinforced by demonstration and hands-on drying experience; familiarize participants with wood-based relation, air drying and kiln drying methods, seasonal defects and their prevention. A field trip to commercial wood drying facility is included; designed for plant supervisors and kiln operators; also recommended for those who are considering construction of drying facilities in their wood processing plant.

5 days duration\*  
P5,000 per person  
Minimum no. of  
participants: 5

### **Insect Pests of Wood, Post Harvest Bamboo and Rattan**

Consists of lecture and laboratory sessions on biology and control of destructive insect pests of wood, bamboo and rattan with emphasis on basic ecology, identification, prevention, control methods and techniques to prevent infestation of termites and wood boring beetles. Also includes introduction to termite baiting and use of physical barrier and a field trip to a commercial termite control company are included. Course is designed for pest control operators, quarantine officers and research/academic personnel who wish to gain basic understanding of the biology and control of these wood boring insects.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

### **Wood-Based Composites**

Consists of lecture and laboratory sessions on the technology and manufacture of plywood, particle-board and fiberboard; emphasis is on raw material properties and selection, various unit of operations in productions and quality control; includes a field trip to a commercial plywood or particle board plant. Course is designed for prospective entrepreneurs / supervisors or technical personnel of wood-based companies who wish to acquire basic understanding of the principles and techniques of producing commercial panel board products.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

### **Marketing of Forest Products**

Consists of lecture and laboratory sessions on marketing concepts and strategies as applied to forest products geared toward the development of an effective marketing plan with emphasis on different marketing concepts and current trends (local and global) that affect effective marketing of forest products. Course is designed for middle management personnel of wood based companies involved in the marketing of various forest products.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

### **Production Planning and Control in Forest-Based Industries**

Consists of lecture and laboratory sessions on the planning and control of production processes of forestry-based industries; includes various tools and techniques to efficiently manage various units of operations in a manufacturing plant. Laboratory exercises include use of computers and various softwares to solve problems in queing situations, inventory control, and scheduling. Course is designed for supervisors in forest-based industries who want to enhance their understanding of production management using different mathematical tools.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

### **Statistical Quality Control in Forest-Based Industries**

Consists of lecture and laboratory sessions on the use of statistics and quantitative tools to control product quality; discussions include sources of variation, tolerances and specifications, control charts, pareto charts and other geographical methods to monitor quality and establishment of quality program, among others; laboratory exercises include use of computers to solve problems in quality control and quality assurance. Course is designed for supervisors in forest-based industries who want to enhance their understanding of quality control to ensure products quality.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

### **Forest Products Finishing**

Consists of lecture and laboratory sessions on the principles and techniques of forest products finishing; emphasis is on finishing characteristics of different raw materials, e.g. wood, bamboo, rattan, etc., finishing materials, finishing cycles and finishing problems and their remedies.; designed for supervisors/technical personnel of companies engaged in furniture manufacture.

5 days duration\*  
P5,000 per person  
Min. no. of  
participants: 5

**\*Schedule of the above forestry courses is by arrangement. Course fee covers only lecture materials and certificate of completion. excluding cost of field trips.**

*For inquiries, please contact:*

*The Director*

*Training Center for Tropical Resources and Ecosystems Sustainability  
(TREES)*

*College of Forestry and Natural Resources, UPLB, College, Laguna 4031*

*Tel. Nos.: ((049) 536-2736/2268*

*Fax No.: (049) 536-3340*

## Human Kinetics

### **Summer Youth Fitness Program**

Provides opportunities for the youth to develop skills of a workable fitness program which culminates in a day-camp with varied challenges that would test their cardiovascular endurance, muscular strength and perseverance.

April 10-April 21 (8:00-9:30)  
 May 22-June 1 (8:00-9:30)  
 P1,450 per person (exclusive of day-camp fees)  
 Min. no. of participants: 20  
 Coordinator: Aivi R. Buan  
 Tel. No. 536-2534/2957  
 CP#: 09179270450

### **Summer Teachers' Course in Rhythm**

The course will provide teachers updated knowledge and opportunities to acquire techniques and style in teaching rhythmic activities to students in order to enhance a sustained healthy life.

April 9-13  
 P1,450 per person (exclusive of day-camp fees)  
 Min. no. of participants: 10  
 Coordinator:  
 Merites M. Buot  
 Tel. No. 536-2534/2957  
 CP#: 09184971885

### **Dance Congress**

#### **“Exploring the World of Dance: Go Ahead, Take the Lead”**

The dance though less superior to the other fields of the arts and humanities such as music, painting, sculpture and poetry, is an integral part of the national culture and identity. Filipinos are incredibly gifted with creative movement which when linked with other disciplines like history and social anthropology would promote wholism in the educational system. The Department of Human Kinetics would sponsor a Dance Congress for the enrichment and retooling of teachers and students involved in the art of dancing.

September 14-16  
 P3,500 per person (for teachers and professionals) inclusive of food  
 P300 per person (for students) exclusive of food  
 Min. no. of participants: 50  
 Coordinator:  
 Naomi M. Enriquez  
 Tel. No. 536-2534/2957

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Tel Nos. (049) 536-5326  
(049) 536-3341  
(049) 536-2354  
(049) 536-3454

Email:  
ovcre\_sctp@yahoo.com.ph  
ovcre@uplb.edu.ph