

Graduate Degree Programs

PLANT GENETIC RESOURCES CONSERVATION AND MANAGEMENT (PGRCM)

The Institute of Crop Science (ICropS) offers various graduate programs leading to the degree of Master of Agriculture (MAgr), Master of Science (MS) in Agronomy, MS in Plant Breeding, MS in Plant Genetic Resources Conservation and Management, Doctor of Philosophy (PhD) in Agronomy, PhD in Plant Breeding and PhD by Research in Agronomy and in Plant Breeding.

The MS PGR programs educates and mentors the current and future germplasm curators/custodians and staff in PGRCM in the region. The program prepares the students for successful careers through the existing curriculum offered at UPLB. It offers new concepts and applications of emerging technologies for use in all aspects of PGRCM. It also exposes students to the issues and policies surrounding PGR at the local, national and international levels. The needs of institutional and community gene banks are integrated into the curriculum providing the students with skills in both systems.

ADMISSION POLICIES

An applicant for admission to a MS program must be a holder of a Bachelor of Science (BS) in Agriculture degree or its equivalent. Where the degree is not in Agriculture but in other biological fields, the applicant must have had at least 6 units of crop science courses.

An applicant for admission to a PhD program must be a holder of a MS degree in a biological field. A holder of a MS degree in a non-biological field must apply for admission to a master's program.

A duly accomplished admission form must be submitted to the Graduate School together with a copy of the official transcript of academic records of previous degree(s) earned, letters of references from two former professors, and in the case of an applicant to the PhD program, an additional letter of recommendation from his/her adviser in the MS degree. For an applicant coming from a country where English is not the medium of instruction, a certification of English proficiency from one of his/her former English professors or the Chairman of an English department must be included.

The application form and supporting papers must be received by the University of the Philippines Los Baños (UPLB) Graduate School not later than January 30 for First Semester (August) admission, and June 31 for Second Semester (January) admission.

EXAMINATIONS

QUALIFYING EXAMINATION

A student for the PhD degree must take a qualifying examination to be conducted by the advisory committee before the second semester of residence. The result of the examination will be the basis for evaluating the student's ability to pursue doctoral studies and for determining a suitable program of course work.

The student should submit an application for the qualifying examination to the dean of the Graduate School not later than one month before the date of the examination.

If the student fails the qualifying examination, no re-examination shall follow except upon the unanimous approval of his/her advisory committee. If the student fails the re-examination, he shall be permanently disqualified from the PhD program.

GENERAL COMPREHENSIVE EXAMINATION

MS students have to take an oral comprehensive general examination after completing all his/her course work. An application addressed to the Dean of the Graduate School should be filed not later than one month before the date of the examination.

FINAL ORAL EXAMINATION

A student in the MS/PhD program is given an oral examination to defend his/her thesis/dissertation once it is completed. The application for the final examination should be submitted to the Graduate School together with the first draft of the thesis/dissertation not later than two weeks before the date of the examination. The advisory committee should also have a copy of the draft at this time.

COURSE REQUIREMENTS

The course work requirement for the MS PGR program is at least 24 units with at least 18 units earned in courses above the 200 level. Research work (thesis) or PGR 300 (6 units) is required of all MS student in Plant Genetic Resources Conservation and Management. At least 15 units of course work shall be in the major field and 9 units in the cognate field

The required foundation courses an MS in PGR student should have had in a previous degree are given below:

A student who has not taken any of the foundation courses or its equivalent in a previous degree program should include this in the present program but units earned in this course cannot be used to satisfy the required number of units for the degree. ICropS shall determine whether the course taken previously may be considered as the equivalent of the required foundation course. A validating examination may be required in some cases if the student took the course or its equivalent outside UPLB.

Course No.	Course Title
BOT 140	Systematics of the Spermatophyte
AGR 152	Plant Genetic Resources Conservation and Management
AGR 170	Fundamentals of Seed Technology

The required core courses or courses common to all graduate students of Plant Genetic Resources Conservation and Management are listed below:

Course No.	Course Title
PGR 261	Assessment of Genetic Diversity in Plants
PGR 262	Plant Genetic Resources Conservation Methods and Management
PGR 263	Plant Genetic Resources Conservation Documentation and Information Management
PGR 299	Graduate Seminar (1 unit) or
AGR 299	Graduate Seminar (2 units)

Other suggested major core courses to satisfy the minimum number of units are also given below:

Course No.	Course Title
AGR 254	Crop Evolution
AGR 270	Seed Science and Technology for Seed Program Development
HORT 234	Crop Seed Physiology
STAT 250	Multivariate Statistical Methods

COURSE OFFERINGS

AGR 254 - Crop Evolution (3). Origin and evolution of crop plants and dynamics of plant domestication. 3 hours (class) PR. AGR 50 or COI. (1).

AGR 270 - Seed Science and Technology for Seed Program Development (3). Advanced concepts in the science and technology of seed production, postproduction, genetic conservation, testing and quality control; policies and management of seed-and related programs. 3 hours (class) PR. AGR 170 or COI. (1).

HORT 234 - Crop Seed Physiology (3). Seed development, dormancy, germination and other physiological processes associated with seed production and storage of economically important crop plants. PR. COI. (1).

PGR 261 - Assessment of Genetic Diversity in Plants (3). Biochemical, molecular, and cytogenic methods of plant genetic resources characterization and evaluation; utilization and classification of plant genetic resources. 5 hours (class) PR. AGR 152 or COI. (1).

PGR 262 - Plant Genetic Resources Conservation Methods and Management (3). Strategies in plant genetic resources conservation and genebank management. 5 hours (class) PR. AGR 152 or COI. (2).

PGR 263 - PGR Documentation and Information Management (3). Management of passport, characterization, evaluation and inventory information in genebanks. 5 hours (class) PR. AGR 152 or COI. (1).

PGR 299 - Graduate Seminar (1). 1 hour (class).

PGR 300 - Master's Thesis (6).

REGULAR FACULTY

ENDONELA, LEAH E. Assistant Professor 4
PhD 2018, University of the Philippines Los Baños
Plant Genetic Resources, Botany, Plant Breeding

GENTALLAN, JR., RENERIO P. Assistant Professor 7
MSc 2018, University of the Philippines Los Baños
Plant Genetic Resources Conservation and Management, Plant Breeding

CALAYUGAN, MARK IAN C. Assistant Professor 3
MSc 2018, University of the Philippines Los Baños
Plant Genetic Resources Conservation and Management

OCAMPO, EUREKA TERESA M. Assistant Professor 5
PhD 2007, University of the Philippines Los Baños
Plant and Stress Physiology, Biochemistry, Molecular Biology

AFFILIATE FACULTY/ STAFF

DAMASCO, OLIVIA P. Retired University Researcher V
PhD 1997, University of Queensland, Australia
In vitro Conservation

FERNANDO, EDWINO S. Retired Professor 12
PhD 1994, University of New South Wales
In situ Conservation

LAURENA, ANTONIO C., Retired Research Professor 3
PhD 1993, University of the Philippines Los Baños Postharvest
Physiology, Horticulture

REAÑO, CONSORCIA E. Retired Associate Professor 7
PhD 1996, University of the Philippines Los Baños *Genetic Diversity Assessment*

MENDIORO, MERLYN S. Retired Professor 12
PhD 1993, University of the Philippines Los Baños *Cytogenetic Characterization*



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INSTITUTE OF CROP SCIENCE

College of Agriculture and Food Science
University of the Philippines Los Baños