

## Bachelor of Science in Agriculture

### MAJOR IN AGRONOMY

The Institute of Crop Science (ICropS) offers three fields of specialization which prospective Agronomy Majors among Bachelor of Science in Agriculture (BSA) students can choose from. These fields of specialization are:

**Plant Breeding:** the science and practice of identification, assembly, conservation, characterization, evaluation and utilization of crop genetic diversity; and manipulation of genetic make-up for varietal development and improvement.

**Crop Production and Management:** the science and practice of producing agronomic crops aimed at increasing productivity and quality efficiently and maximizing monetary returns while minimizing and/or eliminating the negative environmental effects.

**Seed Science and Technology:** As a specialized field, it deals with science and practice of producing good quality seeds. It also involves appropriate seed handling technologies like harvesting drying, processing, storage, quality testing and enhancement.

### PROGRAM OF STUDY OF AN AGRONOMY MAJOR

Just like other BSA students, an Agronomy major should take 27 units of Revitalized General Education Program (RGEP) courses, 31 units of foundation courses, and 43 units of core courses in agriculture. Major students are required to take a total of 44 units of major program courses. The major program includes 18 units of major courses, 12 unit of specialized courses, 3 units of electives, 1 units of undergraduate seminar, and 9 units of major program option (6 units of undergraduate thesis and 3 units of practicum or 6 units of major practice and 3 units of special problem).

### MAJOR CORE COURSES REQUIRED FOR ALL AGRONOMY STUDENTS

Course No.	Course Title	Units
AGR 141	Field Crops Physiology. PR. AGRI 32 or BOT 20. (1, 2)	3
AGR 170	Fundamentals of Seed Technology. PR. AGRI 31 & AGRI 32, AGRI 42 & BOT 20 or COI. (1, 2)	3
CRSC 101	Tropical Annual Crops Production and Management. PR. AGRI 32 or COI. (1, 2)	3
CRSC 102	Tropical Perennial Crops Production. PR. AGRI 32 or COI. (1, 2)	3
CRSC 105	Principles of Plant Breeding. PR. BIO 30. (1, 2)	3
CRSC 199	Undergraduate Seminar in Agronomy. PR. COI. (1, 2)	(1)
SOIL 111 or	Soil and Land Use. PR. Soil 1 or COI. (1)	3
SOIL 150 or	Soil Fertility. PR. Soil 1 or COI. (1, 2)	3
SOIL 170	Soil Conservation and Management. PR. Soil 1 or COI. (1)	3
Total		18

### SPECIALIZED COURSES

The specialized courses to be taken by the Agronomy Major should be made in consultation with their Major Adviser. Specialized courses may be selected from the following suggested courses regardless of specialization:

Course No.	Course Title	Units
AGR 110	Grain Crops Production. PR. AGRI 31. (1, 2)	3
AGR 114	Annual Industrial Crops Production. PR. AGRI 31. (2)	3
AGR 116	Multiple Cropping. PR. AGRI 31 & AGRI 32. (2)	3
AGR 118	Pasture and Feed Crops Production. PR. AGRI 31. (1)	3

AGR 192	Methods in Crop Research. PR. AGRI 31 or COI. (1, 2)	3
AGR 150	Methods in Plant Breeding I. PR. CRSC 105. (1, 2)	3
AGR 153	Methods in Plant Breeding II. PR. AGR 150. (1)	3
AGR 160	Plant Genetic Resources Conservation and Management. PR. CRSC 105 or COI. (1)	3
CRSC 154	Crop Variety Registration and Protection. PR. CRSC 105 or COI. (2)	3
WSC 111	Biology of Weeds. PR. Bot 20 or COI for Post Graduate only). (1)	3
WSC 141	Weeds and their Management. PR. COI. (1, 2)	3

### MAJOR PROGRAM OPTION FOR AGRONOMY

The Major Program Option provides the students the opportunity to conduct independent research and also have supervised hands-on experience on the work of an agricultural practitioner and related careers.

The student may choose from the following options:

Course Title and Number	Units
Undergraduate Thesis (AGR 200) and Practicum (AGR 198)	6
Major Practice (AGR 200a) and Special Problem (AGR 190)	3

Major Practice (250 hours) and Practicum (150 hours) allows the student to apply their knowledge and skills acquired through their coursework. The student may select from the following tracks: (a) Farm Practice, (b) Research Internship, (c) Extension and Community, (d) Teaching Option, and (e) Entrepreneurship. They may opt to do this course in government, on-government, and private institutions.

# Institute of Crop Science

## FACULTY AND STAFF

### Agronomy

**AQUINO, ANNALISSA L.**, Assistant Professor 4

PhD 2012, University of the Philippines Los Baños

Agronomy, Seed Technology, Organic Crops/Seed Production, Soil Conservation

✉ alaquino1@up.edu.ph

**BAEZA, LENIE Q.**, Assistant Professor 3

PhD 2019, University of Illinois

Plant Breeding, Genomics

✉ laquiatchonbaeza@up.edu.ph

**BASCON, MARIA VICTORIA R.**, Asst. Prof. 4

PhD 2022, Nagoya University

Agronomy, Crop Modeling, Data Science

✉ mrbascon1@up.edu.ph

**BERNARDO, EMMANUEL L.**, Assistant Professor 6

MSc 2017, University of the Philippines Los Baños

Micropropagation, Somatic Embryogenesis, Plant Factory

Technology, Crop Physiology, Plant Tissue Culture

**BUENO, CRISANTA S.**, Assistant Professor 5

PhD 2010, University of the Philippines Los Baños

Crop Physiology

✉ csbueno@up.edu.ph

**CALAYUGAN, MARK IAN C.**, Assistant Professor 3

MS 2018, University of the Philippines Los Baños

Plant Breeding, Plant Genetic Resources Conservation and Management

✉ mcalayugan@up.edu.ph

**EDAÑO, MA. LOURDES S.**, Associate Professor 3

PhD 2014, Oklahoma State University

Sustainable Agriculture, Crop Production and Management, Farming Systems

✉ msedano@up.edu.ph

**ENDONELA, LEAH E.**, Assistant Professor 4

PhD 2018, University of the Philippines Los Baños

Plant Genetic Resources, Botany, Plant Breeding

✉ leendonela@up.edu.ph

**GENTALLAN, JR., RENERIO P.**, Assistant Professor 7

MSc 2018, University of the Philippines Los Baños

Plant Genetic Resources Conservation and Management, Plant Breeding,

Image-based phenotyping

✉ rgentallan@up.edu.ph

**HIZON, RONA JOY M.**, Assistant Prof. 4

PhD 2024, University of the Philippines Los Baños

Plant Breeding, Agronomy

✉ rmhizon1@up.edu.ph

**LALUSIN, ANTONIO G.**, Professor 5

PhD 2006, University of Tsukuba

Bioresource Engineering (Molecular Biology), Abaca, Sugarcane, Root crops

✉ aglalusin@up.edu.ph

**LAUDE, TONETTE P.**, Associate Professor 7

PhD 2014, University of South Dakota

Plant Breeding, Plant Science, Corn

✉ tplaude@up.edu.ph

**MAGDALITA, PAGBLITO M.**, Professor 8

PhD 1997, University of Queensland

Plant Biotechnology and Breeding

✉ pmmagdalita@up.edu.ph

**MAGNAYE, ANN MYLALULEX A.**, Assistant Professor 5

MS 2012, University of the Philippines Los Baños

Agronomy, Crop Physiology, Rice Breeding

✉ aamagnaye@up.edu.ph

**MAKAIHYA, HAZELANNE F.** Assistant Professor 4

MSc 2016, University of the Philippines Los Baños

Crop Physiology

✉ hfmakaihya@up.edu.ph

**MARQUEZ, PAUL JOSHUA C.**, Asst. Prof. 1

MSc 2023, University of the Philippines Los Baños

Agronomy, Horticulture, Plant Breeding, Crop Physiology

✉ pcmarquez1@up.edu.ph

**MERCADO, MA. FATIMA O.**, Assistant Professor 7

MSc 2001, University of the Philippines Los Baños

Seed Science and Technology, Sustainable/Ecological Agriculture

✉ momercado@up.edu.ph

**OCAMPO, EUREKA TERESA M.**, Professor 1

PhD 2007, University of the Philippines Los Baños

Plant Stress Physiology, Biochemistry, Molecular Biology

✉ emocampo1@up.edu.ph

**PAELMO, ROSELYN F.**, Associate Professor 3

PhD 2011, University of the Philippines Los Baños

Crop Production and Management, Farming Systems, Agroforestry,

Ecological Agriculture, Organic Farming

✉ rfpaelmo@up.edu.ph

**REALIN, DARA MARIA F.** Assistant Professor 2

MSc 2019, University of the Philippines Los Baños

Agronomy, Horticulture

✉ dfrealin@up.edu.ph

**REYES, MELQUIADES EMMANUEL C.**, Assistant Professor 7

PhD 2002, University of Queensland

Plant Breeding, Plant Molecular Genetics

✉ mcreyes2@up.edu.ph

**SAJISE, EDELWEISS E.**, Assistant Professor 3

PhD 2017, University of the Philippines Los Baños

Horticulture, Plant Breeding, Plant Genetic Resources Conservation and

Management

✉ eesajise@up.edu.ph

**SALAZAR, BABYLON T.**, Assistant Professor 3 MSc

2012, University of the Philippines Los Baños

Crop Production and Management, Industrial Crops

✉ btsalazar@up.edu.ph

**SALAZAR, BONG M.**, Assistant Professor 7

MSc 2010, University of the Philippines Los Baños

Crop Physiology, Postharvest and Stress Physiology

✉ bmsalazar@up.edu.ph

**TIMPLE, STEPHEN E.**, Assistant Professor 1

MSc, 2017, University of the Philippines Los Baños

Agronomy, Seed Science & Technology, Plant Genetic Resources

Conservation and Management

✉ setimple@up.edu.ph

**VERGARA, GEORGINA V.**, Associate Professor 2

PhD 2003, Michigan State University

Plant Breeding and Genetics

✉ gvvergara@up.edu.ph

### PROFESSOR EMERITI

**CARPENA, AZUCENA L.**, Professor Emeritus

PhD 1970, North Carolina State University

Plant Breeding, Genetics, Statistics

✉ alcarpena@up.edu.ph

**HERNANDEZ, JOSE E.**, Professor Emeritus

PhD 1985, Minnesota State University

Plant Breeding and Genetics, Crop Production and Management, Rice

✉ jehernandez@up.edu.ph

**LANTICAN, RICARDO C.**, Professor

Emeritus PhD 1961, Iowa State University

Plant Breeding, Genetics

✉ ric.lantican@gmail.com

**STA. CRUZ, POMPE C.**, Professor Emeritus

PhD 1990, University of the Philippines Los Baños

Agronomy, Crop Physiology, Horticulture

✉ pcstacruz@up.edu.ph



## AGRONOMY

### Undergraduate Programs



## INSTITUTE OF

## CROP SCIENCE

College of Agriculture and Food Science

University of the Philippines Los Baños