





July 9, 2025

#### CERTIFICATION

#### TO WHOM IT MAY CONCERN:

This is to certify that **Mr. Reian O. Laniba** has completed all academic requirements leading to the degree of Master of Science (MS) major in Horticulture this Second Semester of AY 2024 - 2025 in the Visayas State University (VSU), Visca, Baybay City, Leyte.

This certification is issued upon the request of Mr. Laniba for employment.

RAYMUND M. IGCASAMA University Registrar,

NOT VALID WITHOUT UNIVERSITY SEAL OR WITH ERASURE OR ALTERATION

Doc. Stamp Paid: P30.00

OR No.: 721193

Date Issued: July 9, 2025



Visayas State University, 1/F Administration Building Visca, Baybay City, Leyte Email: registrar@vsu.edu.ph Website: www.vsu.edu.ph

Phone: +63 53 565 0600 Local 1010







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No. 25-1873



Mabuhay!

Greetings!

Ipinabatid sa lahat na ang Lupon ng mga Rehente at sa rekomendasyon ng Be it known to all that the Board of Regents and upon the recommendation of Akademikong Konseho ng Unibersidad ay naggawad kay the University Academic Council has conferred upon

# Reian D. Laniba

ng titulong the degree of

## Bachelor of Science in Agriculture

kalakip ang mga karapatan at pribilehiyong kaugnay nito.
with all the rights and privileges appertaining thereto.

Bilang pagpapatunay, nakatatak dito ang sagisag ng Unibersidad
In testimony whereof, the seal of the University
at ang mga lagda ng Pangulo at ng Kalihim ng Unibersidad.
and the signatures of the President and the Secretary of the University are affixed hereunto

Ipinagkalook sa VSU, Visca, Lungsod ng Baybay, Leyte, Pilipinas ngayong ikalabing-apal Given at VSU, Visca, City of Baybay, Leyte, Philippines this 14th day ng Hunyo sa laon ng aling Panginoon, Dalawang Libo at Labingpito. of June in the year of our Lord, Two Thousand and Seventeen.

DANIEL M. TUDTUD, JR. Secretary of the University

EDGARDO E. TULIN
President of the VSU System



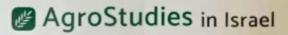


### DIPLOMA

This is to certify that

### Mr. Laniba Reian

Has successfuly completed the applicable Agriculture Program of



Class 2023-2024
As specified in the attached appendix

Boro Polila

Agrostudies

ACADEMIC DIRECTOR

Agrostudies
GENERAL MANAGER







Principles of presentation: performing in front of audience, the correct structure of the slides, generating clear slides and the use of PowerPoint.

#### Agricultural Economics & Enterprise:

- Economic Thinking, Business Plan Structure, Production/ Service Models.
- Creating a Vision. The Law of Diffusion of Innovation. Branding & Marketing.
- Business Environment & Management Models. CEO & Team Responsibilities.
- Forecasting and Calculating Income Estimations.
- Funding: Investors, Funds, Government Support Programs, Strategic Partners.
- Open-Office Excel introduction (with computers).
- Building and calculations of Cash Flow, Net income & Value, ROI (with computers).
- Networking & Sales Strategy. Productions & Investment Costs (with computers).
- Building a full business-enterprise power point presentation for pitch and shipping.
- Personal sales and presentation skills. Investment negotiations.
- Practice of Group Projects Presentations for investors and Capital Funds.

The Course includes Business Games, Active Board Meetings & Peer Assessment Presentations

#### Agricultural Extension and Advisory

Agricultural Extension and Advisory course aimed to expose the students to the world of creating new agricultural knowledge, accessibility of existing knowledge, and its transfer to active farmers to maximize the efficiency of agriculture and the use of resources for the benefit of agriculture.

The lecturers of the course are active agricultural instructors with experience in the field of agricultural consulting

They will learn and enrich the students from their experience and build an exciting agricultural extension project with the students. The course is a product-based course, during which the students needed to use diverse skills and creativity.

#### Steps in extension programing

- Meaning of agricultural extension.
- Understanding the challenges and the limitations
- Data collection, (land, water, climate, labor, technology accessibility)
- Diagnose the required information.
- Understand the solution for short and long terms.
- · Planning action items.
- Establish a program to measure success.
- Lead a process to be the change agent.
- Attitude and behavior: theoretical and practical knowledge, leader, ability to plan and driving action.
- Marketing Approach-directed to the farm's agricultural products.
- Professional developments and innovations: FFS, exhibition, magazines, lectures, media, team of colleges.
- Interaction with companies: irrigation, fertilizers, seeds/genetics, distribution, plastics, nurseries etc.
- Goals of the extension: farm & field visits, teaching skills, field experiments, demonstration, group discussion, R&D survey).
- Group projects presentation dill with finding solution to acute agricultural challenges in the students' homeland.



#### Syllabus of 2023-2024 Horticulture program

Student name: Laniba Reian

#### Fruit Trees Farming

- · General principles in horticulture using examples of the Israeli orchards' agriculture
- · Planning fruit trees: growing conditions, sensitivities, varieties
- · The importance of rootstocks and grafting
- · Phonology of fruit crops
- · Intensification of fruit crops: maximization of yield, fruit size and fruit quality
- conventional and high-density orchards
- · Pollination as a limiting factor
- · Plant hormones and their use in fruit farming
- · Fruit tree machinery
- · Pruning and canopy management
- · Orchard design
- · Fruit tree nursery establishment & management
- · Plant propagation material sources and techniques
- · Economical aspects of fruit tree nursery
- · Tissue culture

#### Principles of modern irrigation technologies

- Argo-meteorology: Evaporation, transpiration, ET, temperatures, humidity, relative humidity, radiation and its effect on evaporation, crop coefficient factor Kc, methods for calculating evapotranspiration, different growth stages and their effect on irrigation and fertilization calculation.
- Soil: The processes of soil formation, the main soil properties and their effect on irrigation and fertilization, soil testing methods, sorting soil types, soil physics, adapting irrigation and fertilization interfaces to soil type.
- Micro Irrigation: Definitions, components, classification of micro-emitters, micro-jets, micro-sprinklers, spreaders and swivels, water distribution patterns, application rate, number of emitters in a lateral. Irrigation system integrity flow rate test and lateral flushing.
- Drip Irrigation: Definition, drippers classification, water passage dimensions, layout of drip
  irrigation systems, water, and salts distribution patterns, regulated drippers.
- Sprinkler Irrigation: Components, advantages, and disadvantages, spacing precipitation rate, sprinkler types, rotating impact sprinkler (Hammer), nozzles, irrigation uniformity, water distribution pattern.
- Filtration: Impurities in water, water analysis, filtration definition, mechanical filtration, filter types and filters maintenance.
- Automation: The latest technologies enabling the operator a minimum manual intervention and their justification.
- 8. Fertilization: Introduction to fertilizer. Fertilizer calculation and practice.
- 9. Mineral deficiency in plants.