PLANS OF ACTION

The mandates of UP faculty members, as stipulated under RA 9500 and the UP Faculty Manual, are teaching, research, public service, university service, and the defense of academic freedom. To help fulfill these mandates, I propose the following action plans in collaboration with the appropriate offices:

Teaching

- Create a more conducive teaching environment by reviewing teaching load policies—specifically, extending credit load units rather than relying solely on teaching load multipliers.
- Review the policy capping faculty participation in conferences, consultancies, and related activities at 20% of contact hours.
- Onboarding programs for new faculty members.
- Teaching enhancement training for faculty members.

Research

- Establish mentoring programs for junior faculty.
- Implement onboarding programs for research project leaders and staff covering administrative processes.
- Formulate a systemwide policy on research load credit caps.

Public Service

- Harmonize public service and extension load credits.
- Provide incentives for public service initiatives.

Service to the University

- Develop a position and compensation classification plan for faculty administrators and committee members.

Defense of Academic Freedom

- Conduct consultation dialogues systemwide and across Constituent Universities (CUs).

Finally, I aim to expand faculty benefits to include:

- Enhanced e-HOPE coverage
- Enhanced Faculty Cumulative Leave Benefit (FCLB)

as well as:

- Lobby more plantilla items
- Lobby to operationalize annual Merit Promotion for Faculty Members

All of these initiatives can be achieved by collaborating closely with the faculty, administrative and research personnel in the best interests of the institution. Together, these efforts constitute an integral part of quality assurance, helping to continuously improve university processes.

[redacted]

LEO MANUEL B. ESTAÑA
Assistant Professor

LEO MANUEL B ESTAÑA
Assistant Professor 7
Department of Mathematics, Physics and Computer Science
College of Science and Mathematics, University of the Philippines Mindanao, Davao City, 8022 Philippines

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My research interests focus on applying mathematical and statistical models and algorithms to solve real-world and theoretical problems, and on developing online and offline applications for fisheries and marine biodiversity. My publications revolve around (1) studies on socio-economic and health drivers of fishing communities employing socio-economic and health surveys and mathematical and statistical models, and (2) the development of apps for marine fishery biodiversity conservation.

Prior to my work in academia, I worked as a community development facilitator in the Indigenous Peoples Development Program, funded by the International Labour Organization. My primary task as a community development facilitator was to enhance communities' capacity to access basic, social, and economic services from various government agencies. Access was enabled by establishing a common goal: the convergence of the communities and the various lines of agencies.

I have also worked as a statistics consultant for government agencies and private clients. I am a member of a technical working group at CHED Region XI, focusing on land-use and infrastructure planning. I also served as a resource person for DepEd XI, enhancing Senior High School teachers' knowledge of mathematics.

I. EDUCATION

MS Applied Mathematics: University of Southeastern Philippines, Davao City, Philippines [A Bat Algorithm Approach to Demand Estimation Models, MS Thesis]

BS Applied Mathematics: University of the Philippines Mindanao, Davao City, Philippines (DOST Scholar) [Finite Approximation of the Renewal Function of Gamma Distribution, Undergraduate Special Problem]

II. TEACHING EXPERIENCE

Assistant Professor 7 : University of the Philippines Mindanao, Davao City, Philippines January 1, 2019 to present

Assistant Professor 1 : University of the Philippines Mindanao, Davao City, Philippines August 1, 2015 to December 31, 2018

Instructor 1 : University of the Philippines Mindanao, Davao City, Philippines January 22, 2013 to July 31, 2015

III. CERTIFICATE COURSES ACHIEVED [SHORT COURSES]

Training on the Preparation of a Land Use Development Infrastructure Plan (LUDIP) for SUCs (Equivalent to 90 hours): Certificate issued 28 February 2024

Good Clinical Practice: NIDA Clinical Trials Network [6-hour course] Validity: 10 May 2021 to 10 May 2024

Introduction to Sustainability and Development: Deakin University [2 Weeks - Future Learn] Awarded: June 2, 2020

Evidence and Data Collection: University of Leeds and Institute of Coding [2 weeks - Future Learn] **for Problem Solving** Awarded: June 9, 2020

Data Analytics for Decision Making: An Introduction: Bond University [2 weeks - Future Learn] **to Using Excel** Awarded: June 23, 2020

Data Analytics for Decision Making: An Introduction: Bond University [2 weeks - Future Learn] **to Using Excel** Awarded: June 23, 2020

Covid-19 Contact Tracing : John Hopkins University [1 week - Coursera] Awarded: June 10, 2020

IV. RESEARCH EXPERIENCES

Project Leader, FISHES Midanao: Fostering Integrated Sustainable Habitats for Ecosystem Security in Davao Gulf, Mindanao, Southern Philippines, a uGREAT Project (Funded by DOST-PCAARRD), January 1, 2026 to June 30, 2027

Project Leader, Baseline Study on the Impact of Electricity Service Transition on Consumer Satisfaction and Local Economic Sectors in Island Garden City of Samal (Funded by Samal City Chamber of Commerce Inc.), June 1, 2026 to October 2, 2026

Project Leader, EMBRACE MABIDA: Empowering Mindanao Biodiversity Research, Awareness, and Conservation Efforts through Marine Biodiversity Database Phase 2 (Funded by DOST-PCAARRD), January 1, 2025 to December 31, 2025

Project Leader, Information System for Marine Fishery Morphology and DNA Sequence in Mindanao (MABIDA Research project) under the Applied Biodiversity for Holistic Advancements in Mindanao (ABRAHAM) Research Program (Funded by DOST and monitored by PCAARRD), October 2021 to December 2024

Project Leader, GTA Lab: A Gamified Taxonomy Mobile Application (Funded by the National Innovation Council and monitored by the National Economic and Development Authority), October 2023 to September 2024

Project Staff, Risk management and Enhanced Survivability analysis Integrated through analysis of Longitudinal Infectious disease data and statistical Epidemiological Model using Clinical risk factors (RESILIEMC) (Funded by DOST and monitored by PCHRD), February 2021 to January 2024

Project Leader, Discretizing Some Relatively New Metaheuristic Algorithms Applied to Travelling Salesperson Problem (TSP), Capacitated Vehicle Routing Problem (CVRP) and Uncapacitated Facility Location Problem (UFLP) (Funded by Office of Research, University of the Philippines Mindanao), October 2019 to September 2020

Study Leader, Bio-economic Assessment and Modelling of Reef Fisheries in Davao Gulf for Sustainable Harvest under Study 4 under the CHED-K to 12 PMU-DARE TO Cooperation Program, June 2018 to November 2020

Project Leader, Identifying important drivers of reef fishery stocks for sustainable management in Mabini, Compostela Valley (Funded by Office of Research, University of the Philippines Mindanao), January 2017 to December 2018

Project Staff, Geo-SAFER Mindanao, Project 5: Geo-SAFER Southeastern Mindanao (Funded by DOST and monitored by PCIERRD), July 2017 to June 15, 2018

Project Staff, Project II.1. GIS-Assisted Assessment on the Potential Yield and Bioresource Availability of Sago in the Wild for Sustainable Industry Utilization (Funded by DOST and monitored by PCIERRD), November 2013 to June 2014

V. PUBLICATIONS AND COPYRIGHT

Estaña, L.M.B., Makinano, I.F. D. and Nañola, C.L.. 2025. Identifying the Spatio-Temporal Changes of the Reef

Covers of Palawan and Pangasinan, Philippines, using Landsat Data and Principal Component Analysis. *Thalassas: An International Journal of Marine Sciences*. [In Galley Proof].

Ligue-Sabio, K.D.B., Gomez, S.J.A., Evangelio, S.A., **Estaña, L.M.B.**, and Alviola P.A. IV. 2025. Location-Allocation Model for Optimizing Healthcare Facility Locations for Emerging Infectious Diseases in Davao City, the Philippines. *Philippine Journal of Science*. [In Galley Proof].

Estaña L.M.B., Nañola, C.L., Nañola, C.D., Martinez, T.M., Ferraren, R.C.Z., and Cabanalan N.C.M. 2025. IGTA Lab: A Gamified Taxonomy Laboratory Mobile Application. Class G, *Intellectual Property Office of the Philippines*.

Acosta, D.F.A., Sarmiento, J.M.P., **Estaña L.M.B.**, Oguis, G.F.R., Evangelio, S.A., Nañola, C.L. Jr., and Alviola, P.A. IV. 2024. Optimized Nutritional Intakes of Fisher's Children in Coastal Communities in Mabini, Davao de Oro, Philippines. *Philippine Journal of Fisheries*. 31(1): 137-154.

Estaña L.M.B., Cabanalan N.C.M., Nañola, C.L. Jr., Santillan J.H.O., Gamot R.M.T., Guillermo M.C.S., Dalig R.P., and Paredes, G.A.S. 2023. Information System for Marine Fishery and Morphology (Mabida) Website. Class N, *Intellectual Property Office of the Philippine*s.

Estaña L.M.B., Cabanalan N.C.M., Nañola, C.L. Jr., Santillan J.H.O., Gamot R.M.T., Fortaleza M.A., Dalig R.P., and Paredes, G.A.S. 2023. Information System for Marine Fishery and Morphology (Mabida) User Interface. Class A, *Intellectual Property Office of the Philippines*.

Estaña L.M.B., Cabanalan N.C.M., Nañola, C.L. Jr., Santillan J.H.O., Gamot R.M.T., Guillermo M.C.S., Dalig R.P., and Paredes, G.A.S. 2023. Class A, Information System for Marine Fishery and Morphology (Mabida) Database. *Intellectual Property Office of the Philippines*.

Damgo, M.. Bacus, M.G., Bernido, J.D.A., Evangelio, S.A., Ligue, K.D.B., Dela Torre V.C.P., **Estaña, L.M.B.**, Murao, L.A.E., and Alviola P.A. IV. 2023. Vulnerability Assessment of Emerging Infectious Diseases in Davao City, Southern Philippines: Utilizing Global Predictors to Develop Localized Interventions. *Philippine Journal of Science*. 152 (5): 1555-1577.

Miguel, C.B. Logrosa G.T, **Estaña, L.M.B.**, Tupas, G.D., Lachica, Z.P., and Alviola P.A. IV. 2023. Risk Factors Associated with Contracting COVID-19 Infection in Selected Regions in Mindanao, Philippines. *Philippine Journal of Science*. 152 (3).

Logrosa G., Mata M.A., Lachica, Z.P., **Estaña, L.M.B.**, and Hassall, M. 2022. Integrating risk assessment and decision‐making methods in Analyzing the dynamics of COVID‐19 epidemics in Davao City, Mindanao Island, Philippines. *Risk Analysis*. 42(1): 105-125.

Usares M.U., Labra, K.N.M., Acosta, J.E. and **Estaña L.M.B.** 2021. Land Suitability Assessment for Poultry Farms in Davao City using Geographic Information System (GIS) and Fuzzy Analytic Heirarchy Process (FAHP). *42nd Asian Conference on Remote Sensing (ACRS2021)*, 1(1): 454-463. Curran Associates, Inc.

Miguel, C.B., Sarmiento, J.M.P., **Estaña, L.M.B.**, Limpoco, M.A.A.A., Calag, V.B., Novero, A.U. and Alviola IV, P.A. 2021. Neighborhood Effects in Hybrid Rice Adoption in Davao del Sur, Philippines. *Philippine Journal of Science*. 150 (6A): 1461-1473.

Sarmiento, J.M.P., Mendez, Q.L.T., **Estaña, L.M.B.**, Giray, E.S., Nañola, C.L. and Alviola IV, P.A. 2021. The role of motorized boats in fishers' productivity in marine protected versus nonprotected areas in Davao Gulf, Philippines. *Environment, Development and Sustainability*. 1-17. Springer Nature.

Chino M. Joquiño, Jon Marx P. Sarmiento, **Leo Manuel B. Estaña,** Cleto L. Nañola, Jr. and Pedro A. Alviola IV. 2021. Seasonal Change, Fishing Revenues, and Nutrient Intakes of Fishers' Children in Davao Gulf, Philippines. *Philippine Journal of Science*. 150(1): 307-323.

Christian Yancy A. Yurong , Aileen Grace D. Delima, **Leo Manuel B. Estaña,** Lief Erikson D. Gamalo & Marion

John Michael M. Achondo. 2020. Community Structure of Road Associated Avifauna along the Urban Gradient in Mintal, Davao City, Southern Philippines. *Biodiversity Journal*. 11(3): 771-780.

Frias JF, Usares M, **Estaña LMB** and JE Acosta. 2017. A GIS-based Landslide Susceptibility Assessment in Talomo Watershed, Davao City, Philippines. *Asian Conference on Remote Sensing 2017*. New Delhi, India

Estaña, L.M.B., Acosta, J.E., Oponda, N.B., and J.P.Oñez. 2016. Bioresource Availability and Potential Starch Yield of Sago Stands in Mindanao, Southern Philippines. *In BANWA Monograph Series* 1, ed. M.J.D. Paluga, 89 – 100. Philippines: University of the Philippines Mindanao.

Hollite, J.D.R, Camino, K.H.B., Acosta, J.E., and **Estaña, L.M.B.** 2015. GIS-based evaluation on the potential sites of sago (Metroxylon sagu Rottb.) processing facility in Agusan del Sur, Philippines. ACRS 2015: 36th Asian Conference on Remote Sensing. Philippines: Asian Conference on Remote Sensing.

VI. SELECT CONFERENCE PRESENTATIONS

Decision support system for fish species taxonomy, PAEDA 1st International Conference and 51st National Convention, 4 June 2021

Philippine Covid-19 Fisheries Vulnerability Index, 40th PAASE Anniversary & 2020 Annual Meeting and Symposium, August 7, 2020

The Role of Motorized Boats in Fisher's Productivity in Marine Protected Versus Non-protected areas in Davao Gulf, Philippines, 40th PAASE Anniversary & 2020 Annual Meeting and Symposium, July 24, 2020

Developing resource-based optimized diet plans for fishermen's children: The case of the Municipality of Mabini, Compostela Valley, Southern Philippines, Mathematical Society of the Philippines, 28 May 2019

VII. ADMINISTRATIVE EXPERIENCE [SELECT POSTS]

Vice Chancellor for Administration, March 2022 to November 2026

OIC Vice Chancellor for Academic Affairs, December 2021 to February 2022

PBB Focal Person, FY2020 and FY2021

BAC Chair for Infrastructure and Consulting Services, 1 January 2021 to 20 June 2021

BAC Chair/Member for Infrastructure, Consulting Services and Goods, 29 September 2020 to 31 December 2020

Director - Interactive Learning Center/Learning Resource Center, 11 September 2021 to present • Member,

UP System Committee on Remote Teaching and Learning, September 2020 to present

Chair - Department of Mathematics, Physics and Computer Science, UP Mindanao, October 2015 to July 2018

VIII. AWARDS

Mentor, University of the Philippines Gawad Pangulo for Innovation (Student team is a national finalist), June 2025

National Finalist, Food is Life Planetary Health Diet (FLEX PHD) Mobile App Development Competition (Organized by NAST and supported by DOST-PCAARD and SEARCA), June 2023

One UP Faculty Grant Award in for Outstanding Teaching and Research, University of the Philippines System, January 2025 to December 2027

One UP Faculty Grant Award in for Outstanding Teaching and Research, University of the Philippines System, January 2022 to December 2024

One UP Faculty Grant Award in for Outstanding Teaching and Public Service, University of the Philippines System, January 2019 to December 2021

International Publication Awards (Multiple), University of the Philippines System (at least 7)

Prepared by:

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LEO MANUEL B. ESTANA
Assistant Professor