



Republic of the Philippines  
**Department of Education**  
REGION VII - CENTRAL VISAYAS  
DIVISION OF CITY SCHOOLS - TAGBILARAN CITY

**Office of the Schools Division  
Superintendent**

January 17, 2025

DIVISION MEMORANDUM  
No. 046 , s. 2025

**PISIKAalaman**  
**(Inter-High School Physics Quiz Bee)**

To: All Public and Private Secondary School Heads  
All Others Concerned

1. This has reference to the Regional Memorandum No. 0046, S 2025. dated January 14, 2025, titled **PISIKAalaman (Inter-High School Physics Quiz Bee)**.
2. This Office, through the Curriculum Implementation Division (CID) would like to invite all public and private high schools to join the **PISIKAalaman, an inter-high school physics quiz bee on February 22, 2025 (Saturday) at the University of the Philippines Diliman**.
3. Kindly refer to the attached letter from the UP Physics Association (UPPA).
4. The participation of the learners and teachers from both public and private schools is subject to the discretion of the Schools Division Superintendent and is subject to compliance with the no-disruption-of-classes policy outlined in DepEd Order No. 9, s. 2005, titled "Instituting Measures to Increase Engaged Time-On-Task". Additionally, participation in the activity must adhere to the no-collection policy as articulated in Section 3 of RA No. 5546, "An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Projects of Purpose from Students and Teachers of Public and Private Schools.
5. Immediate and wide dissemination of this memorandum is desired.

**WILFREDA D. BONGALOS PhD CESO V**  
Office of the Schools Division Superintendent

For the SDS:

  
**JOHN ARIEL A. LAGURA PhD**  
Assistant Schools Division Superintendent

WDB/JAAL/CID/JTB/cmfc



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Republic of the Philippines  
Department of Education  
REGION VII - CENTRAL VISAYAS



Office of the Regional Director

**REGIONAL MEMORANDUM**


No. 0046, s. 2025

14 JAN 2025

**PISIKAalaman  
(Inter-High School Physics Quiz Bee)**

To: Schools Division Superintendents  
All Others Concerned

1. Attached is a communication from the UP Physics Association (UPPA), inviting high school students to join the PISIKAalaman, an inter-high school physics quiz bee on February 22, 2025 (Saturday) at the University of the Philippines Diliman.
2. For further details about the event, please refer to the information provided.
3. The participation of the learners and teachers from both public and private schools is subject to the discretion of the Schools Division Superintendent and is subject to compliance with the no-disruption-of-classes policy outlined in DepEd Order No. 9, s. 2005, titled "Instituting Measures to Increase Engaged Time-On-Task." Additionally, participation in the activity must adhere to the no-collection policy as articulated in Section 3 of RA No. 5546, "An Act Prohibiting the Sale of Tickets and/or the Collection of Contributions for Whatever Projects or Purpose from Students and Teachers of Public and Private Schools."
4. For information and dissemination.

  
**SALUSTIANO T. JIMENEZ EdD, JD, CESO III**  
Director IV  
Regional Director

STJ/FYA/CLMD/MJCD/bca

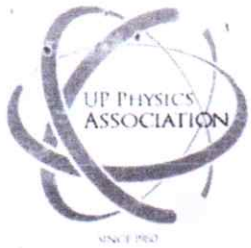


Doña M. Gaisano St., Sudlon, Lahug, Cebu City  
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 DepEd Tayo Region VII

 [region7.deped.gov.ph](http://region7.deped.gov.ph)





# UP Physics Association

National Institute of Physics, College of Science  
University of the Philippines, Diliman  
1101 Diliman, Quezon City



*In the spirit of uplifting science*

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**Dr. Salustiano T. Jimenez**

Regional Director

Department of Education Region VII

Sudlon, Lahug, Cebu City

Warm greetings from the UP Physics Association!

The **UP Physics Association (UPPA)** is an established non-profit, academic organization based at the National Institute of Physics, University of the Philippines Diliman, committed to the promotion and development of physics within and beyond the University. For over 40 years, UPPA has consistently organized projects and events that foster the study, awareness, and appreciation of physics among students and the general public.

Every year, UPPA organizes its flagship event **UPPA Physics Month**, which aims to promote physics through a month-long roster of activities. Atop this roster is **PISIKAAalaman**—an inter-high school physics quiz bee, that aims to (a) gauge students in the development of their physics literacy, (b) provide an alternate way for students to excel in Physics through a competitive activity, and (c) encourage them to pursue physics- and science-related programs.

For the majority of its existence, the event only catered to schools within Metro Manila. However, the pandemic allowed PISIKAAalaman to expand its reach nationwide with nearly 600 participating students. In celebration of UPPA Physics Month 2025, PISIKAAalaman 2025 will be held in **hybrid format**, with the **Elimination Round** to be held **online on 25 January 2025 (Saturday)** via video conferencing software and the **Final Round** to be held **in-person at the University of the Philippines Diliman on 22 February 2025 (Saturday)**.

Having these in mind, we are humbly requesting your office to assist us in the **promotion of PISIKAAalaman 2025 to all DEPED Division Offices**. Attached to this email is the official event primer containing the mechanics and further details of PISIKAAalaman 2025. Interested schools may register through this link: <https://tinyurl.com/PISIKAAalaman2025Rec>

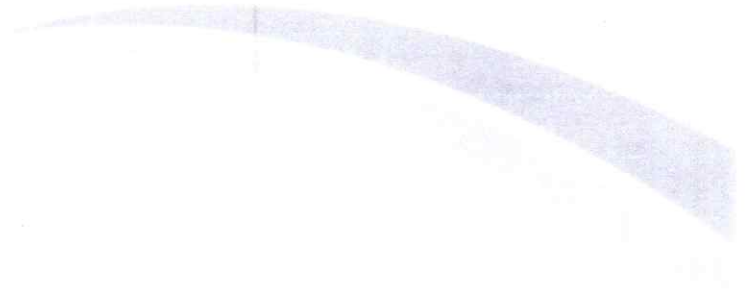
Should you have any questions, please contact us via [uppa-org@nip.upd.edu.ph](mailto:uppa-org@nip.upd.edu.ph) or through any of the given contact details in this letter.

Thank you for your kind consideration and we look forward to your positive response.



# UP Physics Association

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In the Spirit of Uplifting Science

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Noted by

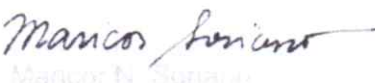
  
Nathaniel Dave T. Tagapulat  
External Affairs Head  
UPPA Physics Month 2025

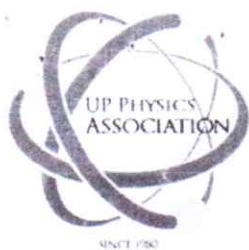
  
Samuel Zoriel Lemayo  
UPPA Physics Month 2025 Project Head  
UPPA Physics Month 2025

  
David D. Dallon  
UPPA President

Endorsed by

  
Andre Espencer M. Ontona  
Instructor, National Institute of Physics  
UPPA Junior Faculty Adviser

  
Marcor N. Soriano  
Professor, National Institute of Physics  
UPPA Senior Faculty Adviser



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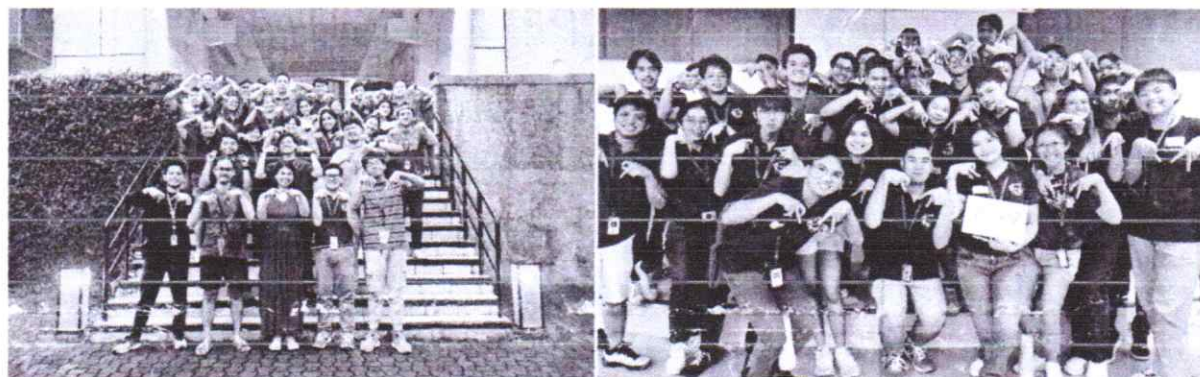
upphysics.org | upphysics.ph | upphysics | upphysics | upphysics

*In the spirit of uplifting science*

## About the Organization

### UP Physics Association

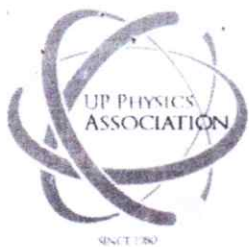
The UP Physics Association (UPPA) is an established non-profit, academic organization based in the University of the Philippines - Diliman committed to the promotion and development of Physics inside and outside the university. For more than 40 years, the UPPA has constantly organized projects and events that advances the study, awareness, and appreciation of Physics among students and the general public.



## About the Event

### PISIKAalaman 2025

PISIKAalaman is an annual inter-high school Physics quiz bee held by the UP Physics Association and is now geared for the revised basic education curriculum of the Philippines. Since its inception in 2004, the event aims to provide an alternative way for students to excel in Physics through a competitive activity and to encourage students to pursue science-related programs in the future, especially in the tertiary level.



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## RULES AND MECHANICS

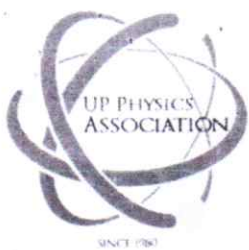
### I. Registration

- A. The registration period is until **11 January 2025**.
- B. Each team that wishes to register for PISIKAalaman must pay a non-refundable registration fee of **Five Hundred Pesos (Php 500.00)**. For DepEd Public High Schools, there is a discounted fee of **Four Hundred Pesos (Php 400.00)** per team. For Early registration, the non-refundable registration fee is **Four Hundred Fifty Pesos (Php 450.00)**, and for DepEd Public High Schools, it is **Three Hundred Fifty Pesos (Php 350.00)** per team.
- C. Registration will only be confirmed when the registration fee has been paid. All interested teams are required to register at <https://tinyurl.com/PISIKAalaman2025Reg> on or before **11 January 2025**. For Early registration **ON or BEFORE January 05, 2025**.
- D. Modes of payment:

<b>Maya</b>	<b>BPI</b>
Clara Patricia Leonor	Clara Patricia Leonor
09178006437	3469192937
- E. Proof of payment for registration of the event must be sent to [uppa-org@nip.upd.edu.ph](mailto:uppa-org@nip.upd.edu.ph). Acknowledgment of payment will be sent through the registrant's/team coach's email.
- F. The details of the event contact persons are as follows:  
Francis Lance Jumawan (Event Co-head): [ftjumawan@up.edu.ph](mailto:ftjumawan@up.edu.ph) | 0967 647 7326  
Gabriel Angelo Vila (Event Co-head): [gvvila@up.edu.ph](mailto:gvvila@up.edu.ph) | 0939 295 4225  
Dave Tagapulot (Externals Affairs): [nttagapulot@up.edu.ph](mailto:nttagapulot@up.edu.ph) | 0965 786 8264

### ii. General Competition Guidelines

- A. Participants
  1. All **High Schools in the Philippines** are eligible to register a **maximum of two (2) teams** in the competition.



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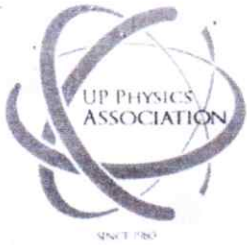
2. Each team should be composed of **three (3) participating members**. The team may also register **one (1) optional substitute member**. Only bona fide high school students at any level (Grade 7 to 12), enrolled in the participating school, are eligible to be a member of the team.
  - 2a. The three participating members are the main participants for the event.
  - 2b. In case one of the participating members cannot make it to the competition **before the start of the elimination round**, the substitute member can take the position.
3. **The substitute member may only replace one of the main participants before the start of the elimination round**. The organizers must be informed when a team decides to utilize its substitute member.
  - 3a. **Teams are only allowed to change their lineup before the elimination round**. However, further substitution is not allowed throughout the succeeding rounds.
  - 3b. In case any of the registered participants cannot make it on the day of the contest proper resulting in an **incomplete number of required team members (three - 3)**, the team will be disqualified.

## B. Registration Information Needed

*The University of the Philippines Physics Association values the privacy and security of personal data given to us by the applicants of the said event. As an academic organization, we are committed to comply with the Data Privacy Act of 2012 (DPA) and treat the information, data, and documents uploaded with utmost confidentiality while ensuring that our genuine and legitimate interests to fully and effectively carry out responsibilities are met.*

*The University of the Philippines Physics Association holds the right to collect and use personal data given by the applicants to verify the applicant's information is true. We collect your personal data that include those you provide us during your application. The University of the Philippines Physics Association will not share your personal information with any third parties without your consent, unless the law allows us to do so.*

1. The team coach must submit to the registration Google Form the team's **recent valid school IDs, photos of the participants holding their respective school IDs, and proofs/certificates of enrollment** for identification purposes. The **email addresses to be used throughout the competition** and **contact numbers** of both the coach and each of the participating students will also be required.



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2. The team coach shall provide his/her **personal Gcash number** or **Bank account information**. The team coach shall be the one responsible for the prize distribution of the winning team.

## C. Devices and Accounts Needed

1. *A reliable laptop/personal computer with working camera and microphone for each participant. Your device should be able to handle Zoom and a web browser all at once.*
2. *A reliable internet connection. The Elimination Round of the competition will be held online; thus, the participants need a reliable internet connection.*

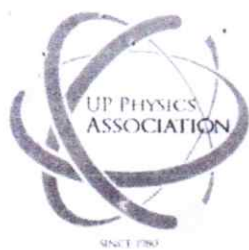
*Technical issues.* The organizers shall not be held responsible for any technical difficulties experienced by participants. Participants are advised to prepare necessary contingencies to technical difficulties, including but not limited to:

- a. internet disconnection and/or latency issues
- b. hardware/device problems
- c. electrical outage

## D. Competition Proper

1. PISIKAlaman 2025 will be implemented in a hybrid setup. The competition consists of two rounds: **Elimination** and **Final**.
2. *Elimination Round*
  - a. The Elimination Round will be held online on **January 25, 2025**. This round will be done through an *online quizzing platform* and *Zoom*.
  - b. The exam consists of **multiple choice** and **problem solving** type questions, covering the following physics subfields:
    - i. Classical Mechanics
    - ii. Optics and Waves
    - iii. Electromagnetism
    - iv. Thermodynamics
    - v. Introductory Modern Physics
  - c. The multiple choice portion consists of **5 parts**, with each part having **2 to 6 questions**. Each part is a group of related questions under one of the physics subfields listed above.





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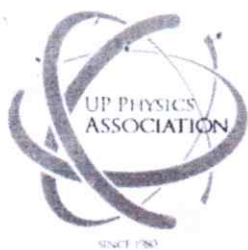
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- b. Participants that made it to the Final Round must confirm their attendance for the in-person Finals by **February 1, 2025**, along with proof of transportation and accommodation booking, if applicable. Failure to comply will result in **forfeiture of the team's slot in the Final Round**, which will be allocated to the next qualifying teams from the Elimination Round.
- c. This round will follow a **quiz bee format**. The questions will be displayed on a screen and will be read twice by the moderator. Teams will then answer collectively, displaying their responses on small whiteboards or chalkboards.
- d. **Each team** will be assigned with **one UPPA Facilitator** in their group circle. The facilitator will monitor the students for potential cheating attempts.
- e. The facilitator will also serve as the communicator between the participants and the board of judges in the event that the participants have a protest right after the answer is revealed.
- f. Solutions will not be shown unless when deemed necessary by the board of judges. Participants may secure themselves **clean solution papers**. The **UPPA Facilitator** of the corresponding team shall double check that the **scratch papers are clean**.
- g. This round will be divided into three parts: **Easy, Average, and Difficult**.
- h. There are **7 questions** for the **Easy round**, **7 questions** for the **Average round**, and **5 questions** for the **Difficult round**.
- i. The pointing scheme for each round is as follows: **Easy – 2 pt; Average – 3 pts; and Difficult – 5 pts**.
- j. Answering time for each question in each round will be as follows: **Round 1 – 45 seconds; Round 2 – 90 seconds; Round 3 – 180 seconds**. The timer will start after the second reading.
- k. **The questions will be read twice**. They are only allowed to start solving after the first reading. A warning will be given each time the participants start writing and solving during the first reading.





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10. Teams who qualified for the final round **should be at the event proper on time**. Qualified teams **who failed** to be within the event proper in **ten (10) minutes** after the designated time **will be disqualified**.

### III. Prizes

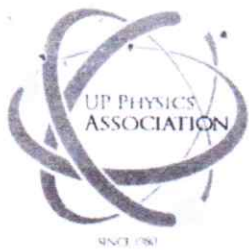
- A. The top three teams will be named as the **Champion, First Runner-up, and Second Runner-up respectively**, and shall receive their corresponding cash prizes through GCash.
- B. Cash prizes shall be given to the said top three teams.

*Champion – Php 5,000*  
*First Runner-up – Php 3,000*  
*Second Runner-up – Php 2,000*

- C. Cash prizes will also be given to the **top three highest individual scorers from the Elimination Round**.

*Top Scorer – Php 1,000*  
*First Runner-up – Php 700*  
*Second Runner-up – Php 500*

- D. Certificates of participation shall be given to all the contestants and advisers at the end of the event through email.



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## TOPIC COVERAGE

### Mechanics

- Vectors
- Kinematics: Motion Along a Straight Line, in 2-Dimensions and in 3-Dimensions
- Newton's Laws of Motion
- Work, Energy, and Conservation of Energy
- Center of Mass, Momentum, Impulse, and Collisions
- Rotational equilibrium and rotational dynamics
- Fluids
- Periodic Motion

### Optics and Waves

- Mechanical Waves
- Geometric Optics
- Interference
- Diffraction

### Thermodynamics

- Temperature and Heat
- Thermal properties of matter
- Laws of Thermodynamics

### Electromagnetism

- Electric Charge, Field, and Potential
- Gauss's Law
- Capacitance and Dielectrics
- Current, Resistance, and Electromotive Force
- DC and AC Circuits
- Magnetic Field and Magnetic Forces
- Electromagnetic Induction
- Electromagnetic Waves

### Modern Physics

- Special Relativity
- Introductory Quantum Mechanics

### Recommended mathematical skill(s)

- Trigonometry
- Basic Calculus (Differentiation and Integration)

### Recommended references

Any fundamentals of Physics academic material. University-level materials may also help in the preparation for the competition. But this reference book is recommended:

Young, H. D., Freedman, R. A., Ford, A. L., & Sears, F. W. (2012). *University physics: With modern physics*. Addison-Wesley.

Walker, J., Halliday, D., & Resnick, R. (2014). *Fundamentals of Physics*. John Wiley & Sons, Inc.