

### Republic of the Philippines

## Department of Education

REGION VIII - EASTERN VISAYAS

## Advisory No. 0 1, s. 2025 January 6, 2025

In compliance with DepEd Order (DO) No. 8, s. 2013
This advisory is issued not for endorsement per DO 28, s. 2001, but only for the information of DepEd officials, personnel/staff, as well as the concerned public.

(Visit deped.in/region8.deped.gov.ph)

## PISIKAALAMAN OF THE UNIVERSITY OF THE PHILIPPINES PHYSICS ASSOCIATION (UPPA)

Attached is the letter from the UPPA, received January 3, 2025, announcing the conduct of the PISIKAalaman, an inter-high school physics quiz bee, with the Elimination Round on January 25, 2025 via video conferencing software and the Final Round on February 22, 2025 at the UP Diliman, Quezon City.

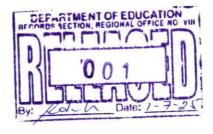
The target participants are the high school learners and teachers.

Participation of both public and private schools shall be subject to the no-disruption-of-classes policy stipulated in DepEd Order No. 9, s. 2005 titled Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith.

See the attached letter for more information.

Considering that this is an Advisory, Schools Division Superintendents are given the discretion to act on this matter.

**CLMD-RRT** 





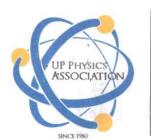




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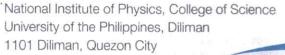


@upphysics [5



Signature







Evelyn R. Fetalvero

Regional Director Department of Education Region VIII Gov't. Center, Candahug, Palo, Leyte

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 PISIKAalaman—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 PISIKAalaman to expand its reach nationwide with nearly 600 participating students. In celebration of UPPA Physics Month 2025, PISIKAalaman 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 PISIKAalaman 2025 to all DEPED Division Offices. Attached to this email is the official event primer containing the mechanics and further details of PISIKAalaman 2025. Interested schools may register through this link: https://tinyurl.com/PISIKAalaman2025Reg

Should you have any questions, please contact us via 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.

@upphysics (6)



uppa-org@nip.upd.edu.ph









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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

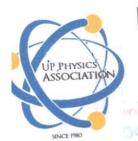
Basic Calculus (Differentiation and Integration)

### 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.









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## 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 <a href="https://tinyurl.com/PISIKAalaman2025Reg">https://tinyurl.com/PISIKAalaman2025Reg</a> on or before 11 January 2025. For Early registration ON or BEFORE January 05, 2025.
- D. Modes of payment:

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BPI

Clara Patricia Leonor

Clara Patricia Leonor

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- E. Proof of payment for registration of the event must be sent to <a href="mailto:uppa-org@nip.upd.edu.ph">uppa-org@nip.upd.edu.ph</a>. 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): <a href="mailto:ftjumawan@up.edu.ph">ftjumawan@up.edu.ph</a> | 0967 647 7326
  Gabriel Angelo Vila (Event Co-head): <a href="mailto:gyvila@up.edu.ph">gyvila@up.edu.ph</a> | 0939 295 4225
  Dave Tagapulot (Externals Affairs): <a href="mailto:nttagapulot@up.edu.ph">nttagapulot@up.edu.ph</a> | 0965 786 8264

### II. General Competition Guidelines

- A. Participants
  - 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. PISIKAalaman 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
  - ÍV. Thermodynamics
  - 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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- d. Proctoring will be done via Zoom. Breakout rooms will be created and Participating teams will be evenly distributed throughout the breakout rooms.
- e. The Elimination round shall run for 60 minutes. After 60 minutes, the UPPA-facilitators shall end the round regardless if some individuals are still answering the questions.
- f. In case any of the members is disconnected, the disconnected participant(s) must inform the event contact persons listed in section I.E. via text message regarding their circumstance and the estimated time of return to the platform. The elimination round will not be extended.
- g. The exam questions will be identical for all participants, but the sequence of the questions may differ. The exam in this round will be answered individually and the team score will be composed of the sum of the individual scores.
- h. A participant is given full points for answering a question correctly and 0 points otherwise.
- i. Team points are immediately available after the exam. The Top 24 teams with the highest cumulative team points will proceed to the Final Round, to be held in-person at UP Diliman.
- j. In case there is a tie around the 24th rank, the individual scores per team will be compared and the team with the highest individual scorer will take the contested slot.
- k. The Top 24 teams that made it to the Final Round will be announced via a post in the UP Physics Association Facebook page. The highest individual scorer for each school will also be announced in a post. The participants' individual scores will be emailed to the coaches. For transparency, answers and solutions to the questions will also be released after the exam.

#### 3. Final Round

a. The Final Round will be held in-person at UP Diliman on February 22, 2025. All booking and costs for transportation and accommodation shall be fully shouldered by the participants and participating school. The organizers will not be responsible for these.

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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.

1101 Diliman, Quezon City











- 1. The Top 3 teams with the highest number of points will be awarded as the Champion, First Runner-up, and Second Runner-up. Winners will receive a cash prize provided through Gcash.
- m. In case of a tie for the top three places, a Clincher round will take place, consisting of five (5) questions with each question having a specified amount of time to answer and with varying points. The ranks will be determined based on the team scores in this round.
- n. If the Clincher round can't break the tie, a Sudden Victory round will occur. Questions will be given until a team fails to answer a question, resulting in elimination. The last team standing wins the Sudden Victory round.
- 4. In the case when a contestant(s) has any concerns regarding the answer, he/she shall inform their corresponding UPPA Facilitator. The UPPA Facilitator will then inform the emcee. The emcee will voice the question, then the board of judges will be inclined to address the concern. Decisions made by the said board will be final and irrevocable. Concerns must be raised immediately before proceeding to the next question, else, would be deemed invalid.
- 5. The said board also has the power to void a question.
- 6. Only a contestant has the right to raise a concern. Any comments and concerns from the audience members (advisers included) will not be entertained.
- 7. Non-graphing scientific calculators are allowed. Before each stage starts, contestants are required to show their calculators for inspection and resetting. Programming softwares is not allowed.
- 8. A link of the Formula sheets containing general formulas and equations will be provided by their corresponding UPPA Facilitator. However, contestants are highly discouraged to rely solely on these formula sheets. Participants are advised to familiarize themselves with useful and necessary equations.
- 9. Cheating in any form will NOT be tolerated. Contestants/teams that are proven guilty of cheating will automatically be disqualified. Common forms of cheating includes: searching the internet during the contest proper, attempting to transfer to other discord categories with the intent of copying the opponent's answers, communication beyond the provided discord voice channel, using a cheat sheet beyond the provided Formula sheet, and change of participants after the elimination round.



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 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.