

Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION

Advisory No. 072, s. 2024
March 4, 2024

In compliance with DepEd Order No. 8, s. 2013
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but only for the information of DepEd officials,
personnel/staff, as well as the concerned public.
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PISIKAalaman 2024

The University of the Philippines Physics Association (UPPA) Diliman campus will conduct the above captioned activity on May 4, 2024, at the National Institute of Physics, University of the Philippines, Diliman.

The activity is an inter-high school physics quiz bee that aims to (a) gauge students in the development of their physics literacy and (b) encourage them to pursue physics- and science-related programs.

Participation of learners shall be entirely voluntary and should not hamper instructional time in school. Please refer to the attached communication for detailed information on the mechanics of the activity.

Interested schools may register through this link:
tinyurl.com/PISIKAalaman2024RegForm.

For more information, please email at uppa-org@nip.upd.edu.ph.

Encl.: As stated



Address: #6 Misamis St., Bago Bantay, Quezon City
Email address: ncr@deped.gov.ph
Website: depedncr.com.ph

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February 29, 2024

JOCELYN DR. ANDAYA

Regional Director

Department of Education, NCR

6 Misamis Street, Bago Bantay, Quezon 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.

In celebration of Physics Month 2024, UPPA is elated to announce the return of the **face-to-face PISIKAalaman**. This is an inter-high school physics quiz bee that aims to (a) gauge students in the development of their physics literacy and (b) encourage them to pursue physics- and science-related programs.

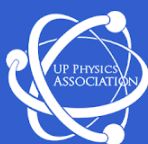
Attached to this email is the official event primer containing the mechanics and further details of PISIKAalaman 2024.

For the majority of its existence since 2004, the event only catered to schools within Metro Manila. However, the pandemic allowed PISIKAalaman to expand its operations outside Metro Manila, inviting high school students from all over the country online with nearly 200 participating teams. Now in its 20th year, drawing from recent experiences, UPPA brings the challenge in person to provinces outside the National Capital Region.

Having these in mind, we are humbly requesting your office to assist us in the **promotion of PISIKAalaman 2024 to senior high schools across your region**. The event will be held in person at the **National Institute of Physics, University of the Philippines Diliman** on **04 May 2024 (Saturday)**. Interested schools may register through this link:

tinyurl.com/PISIKAalaman2024RegForm.

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.



UP Physics Association

Basement, National Institute of Physics, University of the Philippines Diliman
Diliman Quezon City 1101 | uppa-org@nip.upd.edu.ph | facebook.com/upphysics

Thank you for your kind consideration.

In the Spirit of Uplifting Science,



Aiver Luke B. Suing
PISIKAalaman Head for Academic Affairs



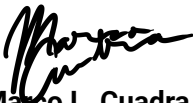
Andrea Rose V. Franco
PISIKAalaman Head for External Affairs



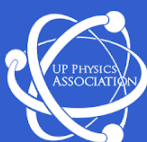
Lourde Almarza
Physics Month 2024 Co-head



Jerald G. Magcalas
Physics Month 2024 Co-head



Marco L. Cuadra
Physics Month 2024 Project Supervisor
President



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 advance the study, awareness, and appreciation of Physics among students and the general public.



About the Event

PISIKAalaman 2024

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.



UP Physics Association

Basement, National Institute of Physics, University of the Philippines Diliman
Diliman Quezon City 1101 | uppa-org@nip.upd.edu.ph | facebook.com/upphysics

RULES AND MECHANICS

I. Registration

- A. The registration period is until **12 April 2024**.
- B. Each team that wishes to register for PISIKAalaman must pay a non-refundable registration fee of **Five Hundred Pesos (Php 500.00)**. For Public High Schools, there is a discounted fee of **Four Hundred Pesos (Php 400.00)** per team. Registration will only be confirmed when the registration fee has been paid. All interested teams are required to register at <http://tiny.cc/PISIKAalaman2024Reg> on or before **12 April 2024**.
- C. Modes of payment:
- | | |
|--|--|
| BPI David D. Daffon 3119408295 | GCash David D. Daffon 0919 535 7472 |
| CIMB David D. Daffon 20867101521129 | |
- D. Proof of payment for registration of the event must be sent to uppa-org@nip.upd.edu.ph. Acknowledgment of payment will be sent through the registrant's/team coach's email.
- E. The details of the event contact persons are as follows:
Andrea Rose V. Franco (External Affairs VP): avfranco2@up.edu.ph | 0906 307 4149
Aiver Luke B. Suing (Event Head): absuing@up.edu.ph | 0948 906 3787

II. General Competition Guidelines

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



2. Each team should be composed of **three (3) participating members**. The team may also register **one (1) optional substitute member**. Only bona fide senior high school students at any level, 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.
4. Team members **must bring their valid school ID** on the day of the event for identification purposes.

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 fill the Google Form for registration with the following information: 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**

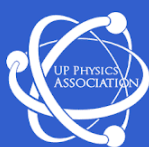


competition and **contact numbers** of both the coach and each of the participating students will also be required.

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. Competition Proper

1. PISIKAAalaman 2024 will be implemented in a face-to-face setup. The competition consists of two rounds: **Eliminations** and **Finals**.
2. Elimination Round
 - a. The Eliminations is an individual written exam with multiple choices. Scratch papers will be provided for the participants in this round.
 - b. The **exam** consists of **5 parts**, with each part having **5 questions**. Each part is a group of related questions under a category. The categories are listed below.
 - Kinematics, Dynamics, Work-Energy, Conservation laws, Equilibrium, Gravitation
 - Periodic motion, Mechanical Waves, Sound
 - Fluid statics and dynamics
 - Thermodynamics
 - Electricity, Magnetism, Geometric Optics
 - c. A UPPA facilitator will supervise the examination and will entertain concerns from the students. Their coaches are not allowed to enter the room during this round.
 - d. The **Elimination round** shall run for **90 minutes**. After 90 minutes, the **UPPA-facilitator shall end** the round **regardless** if some individuals are still answering the questions.
 - e. The exam questions will be **identical for all participants**. The exam in this round will be answered individually and the team score will be composed of the sum of the individual scores.
 - f. A participant is given **full points** for answering a question correctly and **0 points** otherwise. There are no points given for the solutions.
 - g. Team points will be available after the exam. The **top 15** teams with the **highest cumulative team points** will proceed to the **Final Round**.
 - h. The ranked team scores of all teams **will be sent through email**. For transparency, **answers and solutions to the questions will also be released after the exam**.



- i. In case of a tie around the 10th rank, the tied team shall once again do another Exam until the tie is broken. This exam shall comprise 10 items to be answered for **5 minutes**. Team(s) with the **highest cumulative points** in this tie-breaking round will take the **contested slot**. The same mechanics above apply for this tie-breaking round.
- j. In case there is still a tie around the 10th rank, the **individual scores per team will be compared** and the **team with the highest individual scorer will take the contested slot**.

e.g.

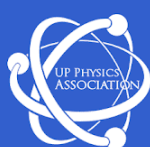
After the tie-breaking round and there is still a tie around the 10th rank given by the scenario

| School - Team | Individual Scores | Total Score | Rank |
|--------------------------|-------------------|-------------|------|
| School A - Team 1 | 10, 8, 6 | 24 | 10.5 |
| School B - Team 1 | 10, 9, 5 | 24 | 10.5 |

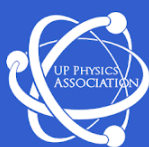
In this case, **School B - Team 1** will take the 10th rank.

3. Final Round

- a. The final 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.
- b. **Each team** will be assigned with **one UPPA Facilitator** in their group circle. The facilitator will monitor the students for potential cheating attempts.
- c. 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.
- d. 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**.
- e. This round will be divided into three parts: **Easy, Average, and Difficult**.



- f. There are **7 questions** for the **Easy round**, **7 questions** for the **Average round**, and **5 questions** for the **Difficult round**.
 - g. The pointing scheme for each round is as follows: **Easy – 2 pt; Average – 3 pts; and Difficult – 5 pts.**
 - h. Answering time for each question in each round will be as follows: **Round 1 – 1 minute; Round 2 – 2 minutes; Round 3 – 3 minutes.** The timer will start after the second reading.
 - i. **The questions will be read twice.** For the first reading, the participants must raise their hands visible in their video feed. 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.
 - j. 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.
 - k. 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.
 - l. 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.
 - 8. **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

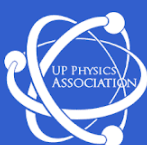


with useful and necessary equations.

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, using a cheat sheet beyond the provided Formula sheet, and change of participants after the elimination round.

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



TOPIC COVERAGE

The topics included will come from the General Physics curriculum of senior high school students following the STEM track.

General Physics I

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

Mechanical Waves and Sound

Temperature and Heat, Ideal Gasses, and the Laws of Thermodynamics

General Physics II

Electrostatics (Electric Charge, Electric Fields, Electric Flux and Electric Potential)

Capacitance and Dielectrics

Current, Resistance, and Electromotive Force

DC Circuits

Magnetostatics

Light as an Electromagnetic Wave

Geometric Optics

Interference and Diffraction

Galilean Relativity

Recommended mathematical skill(s)

Basic calculus (SHS)

Trigonometry (SHS)

Recommended references

Any fundamentals of Physics academic material. University-level materials may also help in the preparation for the competition.

