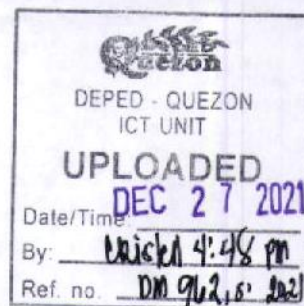




Republic of the Philippines
Department of Education
Region IV-A
SCHOOLS DIVISION OF QUEZON PROVINCE



20 December 2021

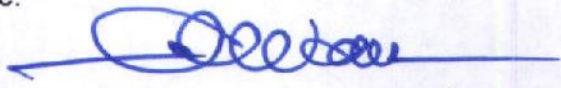
DIVISION MEMORANDUM

DM No. 962, s. 2021

PISIKAAalaman 2022

To: OIC – Assistant Schools Division Superintendents
Public Schools District Supervisors
Public and Private Elementary and Secondary School Heads
All Science Enthusiasts

1. In reference to the letter from Region IV-A CALABARZON, the University of the Philippines Physics Association (UPPA) is inviting all concerned to their PISIKAAalaman 2022 which will be conducted virtually on February 2022.
2. The aim of the activity is to provide the learners an alternative way to excel in Physics through a competitive activity and to encourage them to pursue science-related programs in the future. The event will be held online on February 12, 2022 (Saturday) using video conferencing software. Interested participants may register to the link <https://bit.ly/PISIKAAalaman2022ReqForm> to be able get updates regarding meetin ID, password and other additional softwares.
3. For queries you may contact uppa-org@nip.upd.edu.ph. Please see attached copy of the event primer for the mechanics of the quiz bee.


ELIAS A. ALICAYA, Jr., Ed.D.
Assistant Schools Division Superintendent
Officer-In-Charge
Office of the Schools Division Superintendent

cid-ims/ceao/12/20/2021

DEPEDQUEZON-TM-SDS-04-009-003



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Email Address: quezon@deped.gov.ph
Website: www.depedquezon.com.ph



DO 102121-103342

Republic of the Philippines
Department of Education
REGION IV-A CALABARZON
GATE 2, KARANGALAN VILLAGE
1900 CAINTA, RIZAL



Office of the Regional Director

October 14, 2021

To: Schools Division Superintendents

Dear Superintendents,

This pertains to the letter invitation of the **University of the Philippines Physics Association (UPPA)** to their **PISKAalaman 2022** which will be conducted virtually on **February 22, 2022**.

The annual inter-high school Physics quiz bee will be an avenue to provide learners alternative ways to excel in Physics and also to encourage them to pursue science-related courses in the higher education level. Attached is the letter from UPPA containing all relevant details regarding the activity.

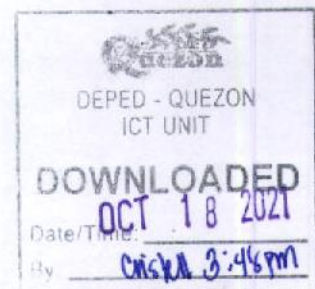
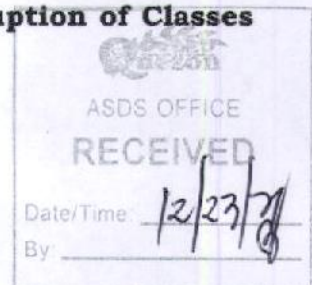
Target participants to the activity are senior high school learners. Interested participants are reminded of the following conditions:

- a) that the Schools Division Office be informed, in writing, of participation in the said activity;
- b) participation is strictly on a **voluntary basis**;
- c) strict observance of the **No Collection Policy** of the Department; and
- d) strict observance of **Time-On-Task Policy** or the **No Disruption of Classes Policy** of the Department.

Please be guided accordingly.

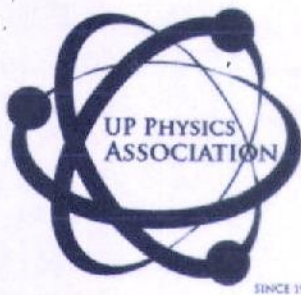
Very truly yours,

Francis Cesar B. Bringas
FRANCIS CESAR B. BRINGAS
Regional Director



"EXCELLENCE is a CULTURE and QUALITY is a COMMITMENT"

Trunkline: 02-8682-5773/8684-4914/8647-7487
Website: depedcalabarzon.ph
Document Inquiry : <https://r4a-teadoc.com/inquire>
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UP PHYSICS ASSOCIATION

NATIONAL INSTITUTE OF PHYSICS,
UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

EXECUTIVE COMMITTEE

A.Y. 2021 - 2022

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Facebook page
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Twitter account
twitter.com/upphysics

Instagram account
[instagram.com/upphysics](https://www.instagram.com/upphysics)

LinkedIn account
[linkedin.com/company/up-physics-association](https://www.linkedin.com/company/up-physics-association)

12 October 2021

FRANCIS CESAR B. BRINGAS

Regional Director
Karangalan ES, Karangalan Village Cainta, Rizal
region4a@deped.gov.ph

Warm greetings from 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.

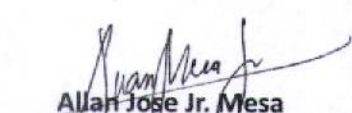
The UPPA will once again organize PISIKAAalaman 2022, an annual inter-high school Physics quiz bee, now to be held virtually/online that is geared for the K-12 curriculum of the Philippines. Since its inception in 2004, this event has been striving to provide an alternate way for students to excel in Physics through a competitive activity and to encourage them to pursue science-related programs in the future, especially Physics in the tertiary level.

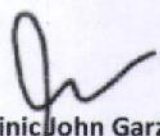
Having these in mind, we are humbly requesting your office to assist us in the promotion of PISIKAAalaman 2022 to senior high schools across the region. The event will be held online using a video conferencing software on **12 February 2022 (Saturday)**. Details regarding the **meeting ID** and **password** as well as the other **additional softwares** needed throughout the entire event will be updated to the teams who will register. Interested schools may register in this link: <https://bit.ly/PISIKAAalaman2022RegForm>

Attached is a copy of the event primer that presents the mechanics and flow of this online quiz bee. 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.

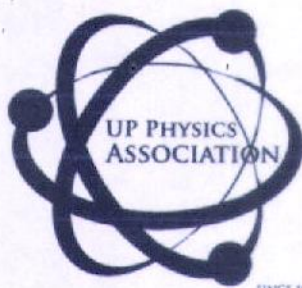
Thank you for your kind consideration.

In the spirit of uplifting science,


Allan Jose Jr. Mesa
Project Head for Academics
ajmesa@up.edu.ph


Dominic John Garza
Project Head for Externals
djgarza@up.edu.ph

In the spirit of uplifting science.



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NATIONAL INSTITUTE OF PHYSICS,
UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

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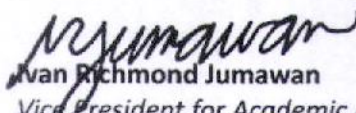
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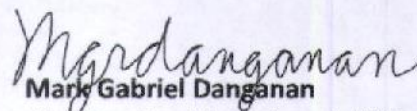
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VP for Publicity & Promotions
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0966 796 4750

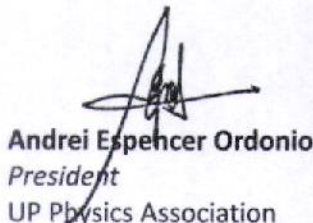
Noted by:


Ivan Richmond Jumawan

Vice President for Academic Affairs
UP Physics Association


Mark Gabriel Danganan

Vice President for External Affairs
UP Physics Association


Andrei Espencer Ordonio
President
UP Physics Association

Official email address

uppa-org@nip.upd.edu.ph

Facebook page

[facebook.com/upphysics](https://www.facebook.com/upphysics)

Twitter account

twitter.com/upphysics

Instagram account

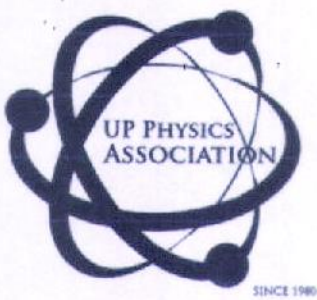
[instagram.com/upphysics](https://www.instagram.com/upphysics)

LinkedIn account

[linkedin.com/company/up-physics-association](https://www.linkedin.com/company/up-physics-association)

In the spirit of upholding science.





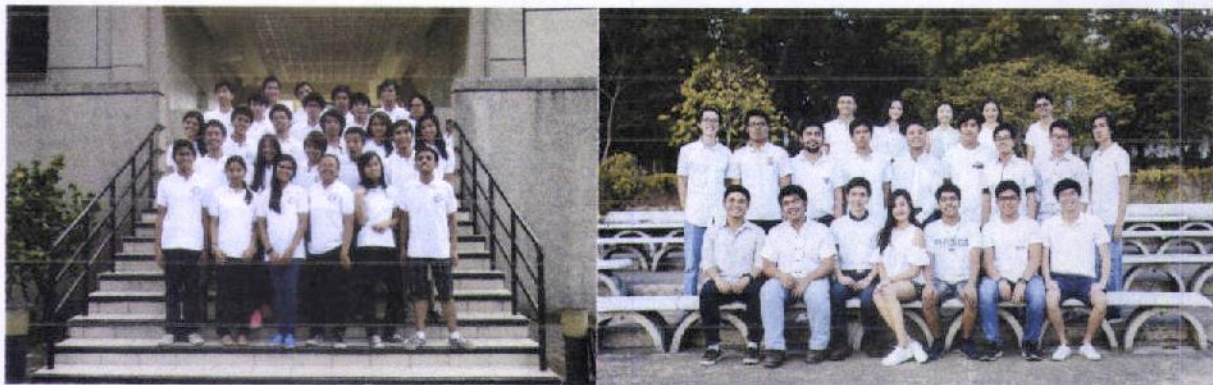
UP PHYSICS ASSOCIATION

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UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

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

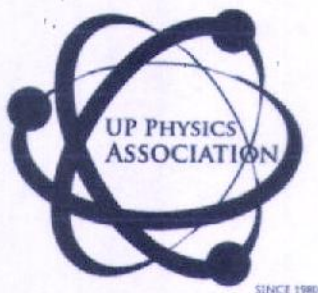
PISIKAAalaman 2022

PISIKAAalaman 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.



In the spirit of exploring science.





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RULES AND MECHANICS

I. Registration

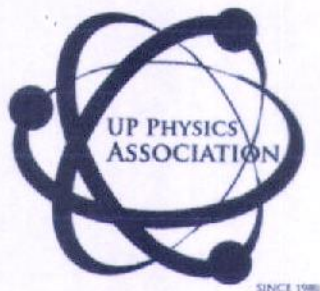
- A. The registration period is until **29 January 2022**.
- B. Each team that wishes to register for PISIKAAalaman must pay a non-refundable registration fee of **Four Hundred Fifty Pesos (Php 450.00)**. For Public High Schools, there is a discounted fee of **Three Hundred Fifty Pesos (Php 350.00)** per team. Registration will only be confirmed when the registration fee has been paid. All interested teams are required to register at <https://bit.ly/PISIKAAalaman2022RegForm> on or before **29 January 2022**.
- C. Modes of payment:
 1. **Bank Account**
CIMB Bank Philippines
Alyana Daquioag
20860748051524
 2. **Gcash Account**
Alyana Daquioag
0949 870 0420
- 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:
Andrei Espencer Ordonio (UPPA President): amordonio@up.edu.ph | 0945 612 2775
Allan Jose Jr. Mesa (Event Co-head): ajmesa@up.edu.ph | 0956 419 4710
Dominic John Garza (Event Co-head): dccgarza1@up.edu.ph | 0966 657 0142

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.

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UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

- 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

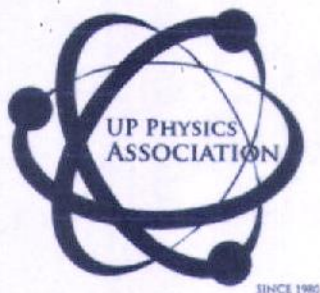
The University of the Philippines Physics Association values the privacy and security of personal data given to us by the applicants of the said event. As an academic organization, we are committed to comply with the Data Privacy Act of 2012 (DPA) and treat the information, data, and documents uploaded 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.
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.

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C. Devices and Accounts Needed

1. *A reliable laptop/personal computer with working camera and microphone.* Your device should be able to handle **Zoom, Discord, and a web browser all at once.**
2. *A reliable internet connection.* The competition is fully implemented online; thus, the participants need a reliable internet connection.

Technical issues. PISIKAAalaman Quiz Bee Problems will not be displayed again if technical issues are on the participant's side. Technical difficulties include but are not limited to the following:

- a. internet disconnection and/or latency issues
 - b. hardware/device problems
 - c. electrical outage
3. *A Zoom account.* Prior to the competition, the participants Zoom name must be changed into the following format: **"Abbreviation of the school name - Team number | Family Name"**.
 4. *A Discord account.* Prior to the competition, the participants Discord name must be changed into the following format: **"Abbreviation of the school name - Team number | Family Name"**.

D. Competition Proper

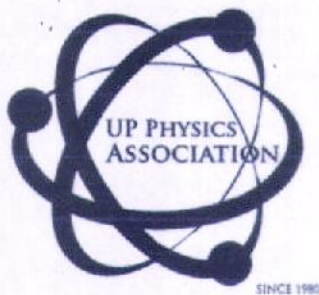
1. PISIKAAalaman 2022 will be held online by utilizing **Zoom, Discord, and an online quizzing platform.**
2. When entering the Zoom room, Discord server, and the online quizzing platform, the participants must follow the following username format:

Abbreviation of the school name - Team number | Family Name
e.g. UPD - 01 | Cruz

3. This year, PISIKAAalaman 2022 will be divided into two (2) stages: **Eliminations and Finals.**
4. **Elimination Round**
 - a. Participants should join the PISIKAAalaman 2022 Zoom room (Broadcasted through FB Live).
 - b. **Breakout rooms will be created. Participating teams** will be evenly distributed throughout the breakout rooms. **One UPPA facilitator** will be assigned per breakout room.

In the spirit of uplifting science.





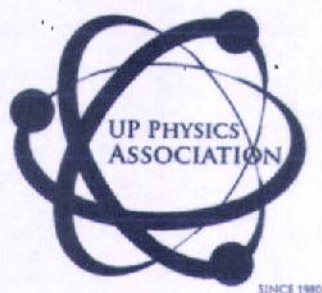
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- c. This round will be done through an online quizzing platform. The **exam** consists of **20 multiple choice items** and **three (3) problem solving items**. This round shall be administered **simultaneously** across the different breakout rooms.
- d. The **Elimination round** shall run for **60 minutes**. After 60 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**, 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.
- f. A participant is given **full points** for answering it right and a wrong answer merits **0 points**.
- g. Team points are immediately available after the exam. The **top 10** teams with the **highest cumulative team points** will proceed to the **Final Round**. 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.**
- h. The top 10 teams that made it to the Final Round will be **announced** in the PISIKAAalaman 2022 Zoom room (Broadcasted through FB Live). The ranked team scores of all teams **will be posted as well**. For transparency, **answers and solutions to the questions will also be released after the exam** (It will be provided within the Zoom meeting chat box).
- 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**.

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UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

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

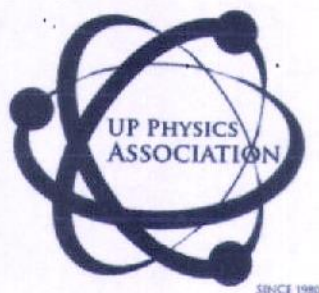
In this case, **School B - Team 1** will take the 10th rank.

5. Finals Round

- The finals round will be conducted in **Discord**. When joining the Discord Server, be sure to **change your name with the required format** as stipulated in section II. D. 2.
- UPPA facilitators **will segregate the teams** into their respective **discord category**. **Participants will be assigned** their corresponding **discord roles** (team number) to restrict their accessible channels.
- Each team** will be assigned with **one UPPA Facilitator** in their respective channels.
- Questions in this round will be answered in **teams**.
- Each team will be given access to a **voice and text channel**. They shall use the **voice channel** to **collaborate their answers and solutions**. On the other hand, they shall use the **text channel** for their **final answer** (Ex. "E1: 15 [kg]"). E1 signifies "Easy question 1". The units should be enclosed in **square brackets**.
- Each participant is required to **turn on** their **camera and microphone**. The camera should be able to **capture the face** of the participant.
- 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**.

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- h. This round will be divided into three parts: **Easy, Average, and Difficult.**
- i. There are **7 questions** for the **Easy round**, **7 questions** for the **Average round**, and **5 questions** for the **Difficult round.**
- j. The pointing scheme for each round is as follows: **Easy – 2 pt; Average – 3 pts; and Difficult – 5 pts.**
- k. Answering time for each question in each round will be as follows: **Round 1 – 45 seconds; Round 2 – 90 seconds; Round 3 – 135 seconds.** The timer will start after the second reading.
- l. The questions will be read by the Emcee and should be broadcasted through **FB Live.** The Zoom room should then be **“share screened”** by the team’s corresponding discord UPPA-facilitator.
- m. **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.
- n. The UPPA facilitator will send a **“TIMES UP”** message to the text channel and answers sent before this message will be accepted. Teams may **send multiple answers** but **only the latest answer will be credited.**
- o. In case any of the participating members get disconnected in the middle of the question, the following conditions will be enforced:
 - o.i. If the team was able to send an answer before a member gets disconnected, the latest answer will be considered as the **FINAL ANSWER** and will be credited in case the answer is correct. However, if the member can reconnect before the end of the timer, the team can change their answer.
 - o.ii. If the team was not able to send an answer before a member gets disconnected and the disconnected member cannot return before the end of the timer for that question, the team will not be able to get points.
 - o.iii. If the disconnected member cannot return for the next questions, the team will not be able to gain any points unless the disconnected member was able to reconnect.

In the spirit of exploring science.





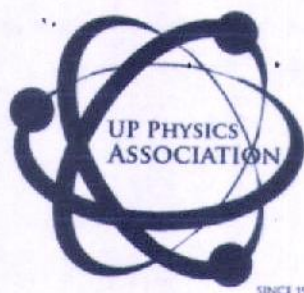
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- o.iv. If the disconnected member cannot reconnect within 15 minutes, the team will be disqualified.
- p. The **Top 3 teams with the highest number of points** will be awarded as the Champion, First Runner-up, and Second Runner-up. Winners will receive a cash prize provided through Gcash.
- q. 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.
- r. 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.**
6. 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.
7. The said board also has the power to void a question.
8. Only a contestant has the right to raise a concern. Any comments and concerns from the audience members (advisers included) will not be entertained.
9. **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.**
10. 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.
11. **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.

In the spirit of uplifting science.





UP PHYSICS ASSOCIATION

NATIONAL INSTITUTE OF PHYSICS,
UNIVERSITY OF THE PHILIPPINES DILIMAN, QUEZON CITY, 1101

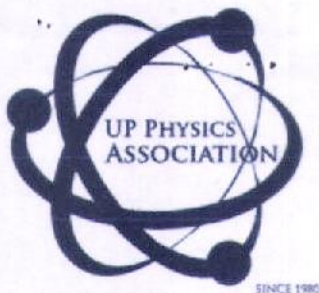
12. Teams who qualified for the final round **should enter the Zoom/Discord channel on time**. Qualified teams **who failed** to be within the Zoom/Discord channel **ten (10) minutes** after the designated time **will be disqualified**.

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 pesos*
 - First Runner-up – Php 3,000 pesos*
 - Second Runner-up – Php 2,000 pesos*
- C. Certificates of participation shall be given to all the contestants and advisers at the end of the event through email.

In the spirit of upholding science.





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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 Gases, 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.

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