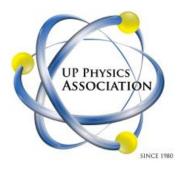


The PISIKAalaman is an annual physics competition organized by the UP Physics Association. This year, major changes are introduced in order to level the competition for all secondary school students and also to make it more enjoyable to the majority.

Academic Year 2012-2013





National Institute of Physics University of the Philippines, Diliman Quezon City, Metro Manila 1101

## PISIKAalaman 2012 Guidelines and Mechanics

### I. General Competition Guidelines and Mechanics

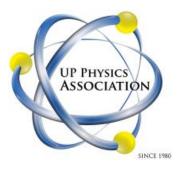
- A. Participants
  - a. All secondary schools inside the Philippines are eligible to register a maximum of two (**2**) teams in the competition.
  - b. Each team is composed of three (**3**) members. Only bona fide secondary school students enrolled in the participating school at **any year level** are eligible to be a member of the team.
  - c. All registered teams must pay a team registration fee of only four hundred and fifty Philippine pesos (**Php 450.00**).
  - d. Changes in the composition of the team are permitted until the start of the group solving round. No substitute or alternate contestants are allowed to join the competition after the start of the said round.
  - e. The contact details of the event organizers are as follows:

### **UP Physics Association**

National Institute of Physics University of the Philippines, Diliman Quezon City, Metro Manila 1101 <u>upphysics@gmail.com</u>

- f. The official website of the competition is **pisikaalaman2012.weebly.com**.
- g. Interested schools are highly advised to express their desire to join the competition on or before the 17<sup>th</sup> of November 2012 by informing the event organizers through the contact details stated above. However, walk-in registrants during the event day itself are still permitted to register and join the competition. The information that must be sent to the event organizers are the following:

| SCHOOL            |  |
|-------------------|--|
| Name:             |  |
| Mailing Address:  |  |
| Telephone Number: |  |
| Fax Number:       |  |



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### PISIKAalaman 2012 Guidelines and Mechanics

| Email Address:  |  |
|-----------------|--|
| COACH(ES)       |  |
| Name:           |  |
| Contact Number: |  |
| Email Address:  |  |
| STUDENTS        |  |
| Name:           |  |
| Year Level:     |  |
| Team Number:    |  |

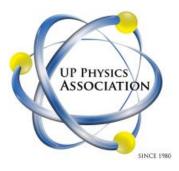
- h. Interested schools may also preregister through tinyurl.com/pisikaalaman2012.
- i. The PISIKAalaman 2012 will be held inside the campus of the University of the Philippines. Thus, all participants must comply with the rules and regulations in application within the campus.

#### B. Competition Proper

- a. The PISIKAalaman 2012 is divided into five parts, the seminar program, the group solving round, the relay round, the buzzer round, and the awarding ceremony.
- b. All participants are required to bring their own **school ID** and **a black or blue pen**. Students are allowed to bring their own **scientific calculator**; however, no programmable and/or graphing calculators are allowed to be used during the competition.
- c. Numerical final answers in questions or problems that involve computation must be expressed using three (3) significant figures. The odd-even rule in rounding values shall be followed.
- d. Protests regarding a particular problem or question will only be entertained during the checking of answers, before the competition progresses into a new problem or question or into a new round. No protests shall be entertained outside the said time range.

#### **II. Seminar Program**

A. Guidelines



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## PISIKAalaman 2012 Guidelines and Mechanics

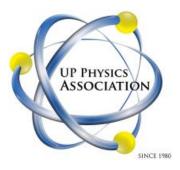
- a. Students who are not members of a competing team must pay an individual registration fee of only one hundred Philippine pesos (Php 100.00). Students from all year levels of a participating school are invited to attend.
- b. The PISIKAalaman 2012 will be held inside the campus of the University of the Philippines. Thus, all participating parties to the event must comply with the rules and regulations in application within the campus.

### B. Description

The seminar program is divided into two parts. The first part shall be the **coaches and teachers' seminar**, which shall happen during the group solving round. The second part shall be the **students' seminar** for the contestants of the competition, which shall happen after the group solving round.

### **III. Group Solving Round**

- A. Mechanics
  - a. All teams shall be given the same set of five physics problems which they will try to solve for two (**2**) hours.
  - b. Each physics problem shall start with an explanation of the physics concepts needed to solve the problem. This aims to level the field for all secondary schools with different physics curricula.
  - c. Each team shall be given a formula card which could be useful throughout the competition. The teams are permitted to bring the formula cards to the next rounds.
  - d. Each problem has a set of objective-type questions with corresponding points based on difficulty. The top ten (10) teams with the highest cumulative points in this round will proceed to the next round. In case of a tie in the last ranks, causing more than ten teams qualified for the top ten positions, the teams vying for the last ranks will be given a clincher problem to be answered for ten (10) minutes.
  - e. Each of the five problems shall come from one of the following: Mechanics, Oscillations and Mechanical Waves, Thermodynamics, Electricity and Magnetism, and Light and Optics.
  - f. There shall be a maximum of ten (10) points to be given per problem. The maximum number of points that can be obtained in this round is fifty (50) points.



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# PISIKAalaman 2012 Guidelines and Mechanics

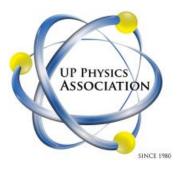
### B. Guidelines

- a. Participants are not allowed to communicate in any way with other teams. Participants are only allowed to discuss the problems among their teammates.
- b. Questions to proctors must be clarifications about the rules or the text, not about the concepts in the problems.
- c. The use of external references, even if it is digital or personal, is strictly prohibited.

### IV. Relay Round

- A. Mechanics
  - a. There shall be five (5) sets of questions. Each set has three (3) questions.
  - b. The answer to the first question is needed to answer the second question, and the answer to the second question is needed to answer the third question.
  - c. Only one team member can answer per question.
  - d. The participants shall be given five (5) minutes to answer all questions.
  - e. Ten (**10**) points shall be given to teams who got the correct answer to the third question.
  - f. No partial points shall be awarded if the third question is incorrect even though the first and second points are correct. However, full points shall still be awarded if the answer to the third is correct even though the answers to the first and second are incorrect. Only the answer to the third question shall be considered for the points.
  - g. The maximum number of points that can be obtained by a team in this round is fifty (**50**) points.
- B. Guidelines
  - a. Failure to submit the answer to the third question after five (5) minutes shall invalidate the answer.
  - b. Participants of this round are not allowed to communicate with anyone, even their team members, except the proctors and the game master.

### V. Buzzer Round



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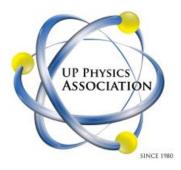
# PISIKAalaman 2012 Guidelines and Mechanics

### A. Mechanics

- a. There shall be ten (10) questions in this round, worth five (5) points each.
- b. Only one team shall receive full points per question.
- c. After the second reading of the question, the contestants shall be given five (5) minutes to answer the question. The team's buzzer may be pressed any time within the said time duration.
- d. The first team to press the buzzer shall be given ten (**10**) seconds to provide their answer. When no answer or an incorrect answer is provided, other teams will get the chance to provide their own answer by pressing their own buzzers.
- e. No team is allowed to answer the same question twice.
- f. The maximum number of points that can be obtained by a team in this round is fifty (**50**) points.
- B. Guidelines
  - a. Communication with other teams or the audience is strictly prohibited. Teams caught doing this shall be disqualified to answer the current question.
  - b. Only one team member may speak for the team while providing their answer.
  - c. In case more than one answer is given, the last answer stated within the time limit shall be considered.
  - d. A clincher round shall be undertaken in case of a tie in the top three ranks.

### VI. Final Team Ranking and Prizes

- A. Scoring
  - a. The maximum number of points that can be obtained in the competition is one hundred and fifty points (**150 points**), the sum of all points obtained during the Group Solving Round, the Relay Round, and the Buzzer Round.
  - b. The clincher problem/s provided in the Group Solving Round shall not affect the final team rankings.
- B. Prizes
  - a. The top three teams shall receive a trophy and each students belonging to these teams shall be given a medal. Cash prizes shall be given to the Champion, 1<sup>st</sup> Runner-up and 2<sup>nd</sup> Runner-up.
  - b. Certificates of participation shall be given to all teams and shall be given only during the awarding ceremony.



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# PISIKAalaman 2012 Guidelines and Mechanics

#### VII. Event Schedule

Saturday, 24 November 2012

| 08:30AM – 09:00AM<br>09:00AM – 11:00AM   | Registration Activities<br>Group Solving Round<br>Coaches and Teachers' Seminar |
|--|---|
| 11:00AM – 12:30PM<br>12:30PM – 01:30PM<br>01:30PM – 02:30PM<br>02:30PM – 03:00PM | Students' Seminar<br>Lunch Break<br>Relay Round<br>Snack Break<br>Buzzer Bound  |
| 03:00PM – 04:30PM<br>04:30PM – 05:00PM   | Buzzer Round<br>Awarding Ceremony   |