



19 December 2017

The Principal  
High School Department  
School

Dear Sir/Madam,

Greetings of peace and happiness!

The Mapúa University – Senior High School (SHS) Department will be holding its first CHM-MA-PHY Junior Triwizard Tournament on January 24, 2018 (Wednesday) at the Mapúa University (MU) Gymnasium. The SHS Department of MU aims to foster camaraderie between students of all schools through a friendly competition to hail the first ever Triwizard Champions.

In line with this, we would like to invite you and your students to participate in this competition to showcase their skills in Chemistry, Math and Physics. This is open to any Grade 10 and 11 student currently enrolled in your institution. Your school may send a maximum of two (2) teams with three (3) members each, with two (2) accompanying coaches at most. During the day of the contest, participants should be in their school uniform (including their school ID). The full mechanics of the contest are attached along with this invitation.

The following are the important dates regarding the competition:

Deadline of Early Bird Online Registration	January 7, 2018 (Sunday)
Deadline of Regular Online Registration	January 14, 2018 (Sunday)
Contest Proper	January 24, 2018 (Wednesday)

Registration for the event is **FREE**. Early bird registrants shall receive freebies. Participating teams may register online on the official Facebook page of the event at <https://www.facebook.com/chmmaphy/>.

Trophies, medals, and cash prizes will be awarded to the champion (PhP 12,000), 1<sup>st</sup> runner-up (PhP 9,000), and 2<sup>nd</sup> runner-up (PhP 6,000). Certificates of Participation will be awarded to all participating contestants.

We are hoping for your favorable response regarding this matter. Should you have any queries, feel free to contact any of the signatories below. Thank you and Mabuhay!

Sincerely yours,

**Prof. Rumel Angelo T. Alfaro**

Over-all Chair, CHM-MA-PHY Junior Triwizard Tournament  
[ratalfaro@mapua.edu.ph](mailto:ratalfaro@mapua.edu.ph) / +639158490927

**Engr. Ma. Elizabeth Bismonte**

Co-Chair, CHM-MA-PHY Junior Triwizard Tournament  
[mebsimonte@mapua.edu.ph](mailto:mebsimonte@mapua.edu.ph)

Noted by:

**Dr. Dionisia M. Lanuza**

Principal  
[dmlanuza@mapua.edu.ph](mailto:dmlanuza@mapua.edu.ph)





## **1<sup>st</sup> CHM-MA-PHY Junior Triwizard Tournament**

### **Contest Mechanics**

- I. Team Composition and Eligibility
  - a. Any currently enrolled Grade 10 or Grade 11 from the given institution may join the contest.
  - b. Each participating school can send at most two (2) teams.
  - c. Each participating team should consist of (3) members from the same high school. The students in a team can be all Grade 10 students, all Grade 11 students, or a combination of both Grade 10 and Grade 11 students, as long as they come from the same school.
  
- II. Coverage
  - a. Chemistry
    - i. Atomic Structure
    - ii. Gases and Stoichiometry
    - iii. Chemical Bonding
    - iv. Basic Organic Chemistry
    - v. Basic Quantum Principles
  
  - b. Mathematics
    - i. Algebra  
Polynomial functions, inequalities, rational functions, systems of equations, roots of polynomials, sequences, series
    - ii. Geometry  
Triangles, parallel and perpendicular lines, parallelograms, plane trigonometry, circles, coordinate geometry
    - iii. Statistics and Probability  
Measures of central tendency, variability, basic probability, combinatorics, measures of position, probability distribution
  
  - c. Physics
    - i. Laws of Motion
    - ii. Conservation of Energy
    - iii. Heat and Work
    - iv. Electricity and Magnetism
    - v. Optics
    - vi. Statics and Dynamics of Rigid and Deformable Bodies
  
- III. Contest Proper
  - a. Elimination Round
    - i. In this round, wizards will be separated and will be individually answering all questions divided into three (3) fields – Chemistry, Mathematics, and Physics.
    - ii. The elimination exam will all be multiple-choice questions, 25 randomized items per field, with the answers being submitted by the wizards via Clicker.
    - iii. The wizards will be given questionnaires and answer sheets for this round, but the answers that will be counted are the ones submitted through the Clicker.
    - iv. Each correct answer will merit one (1) point.
    - v. At the end of this round, the score of the groups will be determined by getting the sum of the scores of the wizards in the group.
    - vi. The top ten (10) highest scoring teams will advance to the Final Round.
    - vii. In the event that two (2) teams will tie for the tenth spot, both groups shall qualify.
    - viii. In the event that more than eleven teams (11) will qualify due to ties, all teams vying for the last spot will have a sudden death elimination contest that will be administered by the judges, in the presence of their respective coaches.



b. Final Round

- i. Qualifying teams shall undergo a quiz bee-style Final Round to determine the CHM-MA-PHY Junior Triwizard Champions.
- ii. There shall be three (3) rounds – the Basic, Intermediate, and Advanced rounds. Each round shall consist of ten (10) questions consisting of mental questions, hand questions and calculator questions.
- iii. Each question shall be read twice. The teams are allowed to start computing and writing their answers only after the first reading of the question, otherwise the group will be disqualified from answering the current question.
- iv. In this round, booklets containing the questions, which will also serve as their answer sheets will be provided to the teams.
- v. Premature opening and/or turning of pages in the booklet will result to the disqualification of the team. The booklets can only be turned upon the instruction of the quizmasters.
- vi. In the event of a disqualification, the team that landed on the 11<sup>th</sup> place of the elimination round shall replace the disqualified team. If the group on the 11<sup>th</sup> place is already on the final round, then the group on the 12<sup>th</sup> place will join the Final Round.
- vii. The scores obtained by the wizards from the Elimination Round will not have an effect on the scores in the Final Round.
- viii. Every correct answer in the Basic, Intermediate, and Advanced rounds will merit 10, 15, and 20 points, respectively.
- ix. The scores of the teams will be tallied at the end of the Advanced round and awards will be given to the teams garnering the top three (3) highest cumulative scores.

IV. Registration and Prizes

a. Registration

- i. Early Bird (on or before January 7, 2018)
- ii. Regular (on or before January 14, 2018)

b. Prizes

- i. Champion – trophy, medals, and cash amounting to PhP 12,000
- ii. 1<sup>st</sup> runner-up – trophy, medals, and cash amounting PhP 9,000
- iii. 2<sup>nd</sup> runner-up – trophy, medals, and cash amounting to PhP 6,000

V. Technicalities

- a. Any form of cheating or coaching will incur a penalty for the group/s involved. For the first offense, the group will be deducted points corresponding to the number of points being awarded in that question. For the second offense, the group shall be automatically disqualified from the contest.
- b. Protests from the students or coaches may be raised to the committee of judges before the next question is read. Protests will no longer be entertained by the start of the next question.
- c. For objective free-response type questions, incorrectly spelled and/or incomplete answers shall not merit points.
- d. For calculated free-response type questions, answers must be given in exact value (meaning, for irrational numbers, express the answer in radical form or in terms of  $e$  or  $\pi$ , or the like) with corresponding unit, unless otherwise stated in the problem (in case of decimal answer, if required, shall be rounded to four decimal places). All answers not following this rule shall be considered incorrect.
- e. All final answers shall be enclosed in a box. Final answers without boxes, with vague erasures, and with unreadable answers as deemed by the judges will not merit points.
- f. The collective decision by the judges is final and irrevocable.