



2nd PHILIPPINE NUCLEAR SCIENCE OLYMPIAD GUIDELINES AND MECHANICS

I. INTRODUCTION

The first International Nuclear Science Olympiad (INSO) was held in July 2024 with the goal of fostering global interest and excellence in nuclear science among young individuals, promoting international collaboration, and inspiring the next generation of leaders in nuclear technology and safety. The Philippine Team to the 1st INSO brought honor and pride to the country by winning 2 gold and 1 silver medals. In addition, one of the Philippine delegates earned the prestigious Nuclear Ambassador title in the 1st INSO and garnered the top scorer award. This demonstrates that the Philippine team excels in nuclear science and showcases the country's strong educational foundation and dedication to advancing nuclear science on the global stage.

The Philippines will once again participate to the 2nd INSO which will be held in Malaysia in 2025. In order to select a highly motivated, competitive, and talented delegation for this event, the 2nd Philippine Nuclear Science Olympiad (PNSO) will be conducted. The 2nd PNSO is a national competition that aims to select the national delegates and train them for the 2nd INSO. It includes nationwide examinations during the elimination round to select the finalists who will then undergo a nuclear science training and take the team selection test.

II. OBJECTIVES

The 2nd PNSO aims to:

- Conduct a national Olympiad that will allow the constitution of a national delegation to the International Nuclear Science Olympiad;
- Encourage the improvement of nuclear science in the Philippines by stimulating interest in this field among students and teachers;
- Promote awareness, appreciation, and competence in nuclear science in the secondary level and enhance advancement of nuclear science education in the country; and
- Identify talented students in nuclear science and further train them as competent participants to international nuclear science competitions.

III. APPLICATION GUIDELINES TO THE 2nd PNSO

- The competition is open for all secondary school students in the Philippines, aged 15 to 20, and who have not yet enrolled in a university program by 31 August 2025.
- To register for the 2nd PNSO, the registration form must be completed and submitted online. The online registration form can be accessed through this link: <https://forms.gle/N9uwsh7au6GRkbNP6>. **The form will be available from February 17 to March 13, 2025.** If the link is inaccessible, please check the PNRI website for updates.
- Each school may nominate one (1) team only, composed of one official coach and a maximum of three (3) students. Schools are encouraged to rank students to facilitate shortlisting, if necessary.



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- Students have to be strongly endorsed by either the Division Office of the Department of Education or by the school principal/head.
- Students will be registered as official participants for the Elimination Round at their preferred testing sites on a first-come, first-served basis. If their preferred testing site has exceeded the maximum capacity, students may be reassigned to a different testing site outside their region.
- Official participants will receive an acceptance notification, including their final testing site assignment, via email starting March 14, 2025.
- Official participants who are selected for the Final Round are encouraged to obtain a valid passport by June 2025.

IV. COVERAGE OF TEST QUESTIONS

The examinations will cover topics in the General Syllabus of the International Nuclear Science Olympiad (INSO), which can be found in this link: <https://inso.science/the-olympiad/general-syllabus/>

- Structure of an atom and nucleus
- Radiation
- Fission & Fusion
- Radioactivity in the Environment
- History of Nuclear Science
- Risk and Safety
- Applications (Energy, Health, Industry/Agriculture, Environment)

V. PNSO MECHANICS

The Olympiad will consist of (A) Elimination Round and (B) Finals Round to select the members of the national team.

(A) ELIMINATION ROUND / SCREENING

Simultaneous examinations for the Elimination Round will be held on April 3, 2025 in selected testing areas around the Philippines. Testing sites will be announced at a later date.

The 2nd PNSO aims to provide all schools with the opportunity to compete. If the capacity of the testing sites is exceeded, official participants will be selected based on the following criteria:

- **School's Priority List:** Preference will be given to students ranked higher on their school's priority list.
- **Student Endorsements:** Strong endorsements from the Division Office of the Department of Education or the school principal/head will be considered.
- **Equal Opportunities:** Efforts will be made to ensure equal participation opportunities for all registered schools.



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- The elimination round will be conducted as a written examination, with all students competing individually. The examination will comprise 10 conceptual questions, 5 short problems, 1 theoretical long problem, and 1 experimental long problem. Students will have a total of 2.5 hours to complete the examination. Failure to follow instructions will result in the invalidation of responses in the affected sections
- Students must bring their own scientific calculators for the elimination examination. Only prescribed non-programmable calculators will be allowed for the examination as listed in this link: <https://www.prc.gov.ph/article/updated-list-non-programmable-calculators-allowed-be-used-licensure-examinations/7305>. PNRI staff will be inspecting the calculators prior to the examination.
- All electronic devices and other items (i.e., school bags, notes, etc.) not part of the examinations must be surrendered to the coaches or proctors prior to the examination.
- Only one (1) non-programmable calculator per participant shall be allowed inside the examination room.
- Borrowing, lending, and substitution/replacement of calculators while the elimination exam is in progress shall not be allowed.
- The use of smartphones, smart watches, smart glasses, and/or other electronic devices of the like are not allowed during the examination. The only exception to this is the scientific calculator to be used during the examination and medical devices necessary for the health of the student, if any.
- The duration of the examination is fixed at 2.5 hours. Students are discouraged from leaving the testing room during the examination. Should students need to use the toilet, a proctor will accompany the student to the toilet and back to the testing area. If a student is unable to complete the examination due to health reasons and must leave the testing area, their scores will be based on the answers provided prior to leaving the testing area.
- Students are allowed to ask questions pertaining to the general instructions of the examination only. Students may only ask these questions prior to the start of the examination. However, any questions/clarifications regarding specific questions/items of the exam will not be entertained during the examination proper. Students must write down on their answer sheet any questions they have pertaining to a specific test item. Questions related to test items will be addressed during the evaluation of answer sheets.
- The PNSO Scientific Committee will evaluate the students' answer sheets. The results of the elimination round will be announced on April 9, 2025 through the PNRI website and its social media platforms. The examination results are final and not subject to appeal. Test questionnaires, answer keys, and related materials will not be released.
- The top twenty (20) students from the elimination round will participate in the online Nuclear Science Training (NST) and the team selection test (final exam). It will be organized by the PNSO 2025 Scientific Committee. These will be conducted on April 14–May 9, 2025.



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(B) FINAL ROUND – SELECTION OF NATIONAL TEAM

- The Philippine National Team representatives will be selected from the top 20 students in the Elimination Round that have successfully completed the online NST. The top 5 students will be chosen based on their performance in the following areas:

Attendance quiz (serves as basis of attendance to online NST)	10%
Problem set	30%
Team Selection Test (Final Examination)	60%
Total	100%

- Team Selection Test (Final Exam) will be conducted onsite at PNRI. After the Final Round, the top 5 students will be selected. Tie-breaker round(s), as needed, maybe conducted.
- The top four (4) students in the Final Round, with approval of the PNSO Scientific Committee, will be declared as representatives of the Philippines to the 2nd International Nuclear Science Olympiad to be held in Malaysia on July 30–August 6, 2025.
- The Philippine National Team will consist of four official participants, one reserve participant, and two Team Leaders from PNRI. The reserve participant will step-in for an official participant who is unable to compete during the 2nd INSO.
- The Philippine National Team will then undergo a four- to six-week face-to-face training at PNRI, as part of its preparations for the 2nd INSO. It will commence in June 2025. Attendance to the face-to-face training is mandatory.

VI. OTHER MATTERS

- Like and follow the official PNRI Facebook page (<https://www.facebook.com/PNRIDOST>) for important announcements and updates about the 2nd PNSO. Participants are responsible for their travel arrangement and expenses to the testing sites for the PNSO elimination round and team selection tests.
- Participants should arrive at the testing site at least one (1) hour before the start of the examination. This time will be allotted for onsite registration before the start of the examination. Participants should present their school IDs and acceptance letter during the onsite verification.
- Drinks and light snacks will be provided to the students during the onsite examination.
- Writing materials and scratch papers will be provided to the students during the written examination.
- Taking photos or videos during the examination is strictly prohibited. PNRI documentation staff will be present during the event to document the event.



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- The officials of the PNSO shall have the right to disqualify any student who violates any item in the PNSO Guidelines and Mechanics.
- The results of the elimination round and team selection test will be final and not appealable.
- For inquiries regarding the registration, send an e-mail to pns2025@pnri.dost.gov.ph

VII. FINAL TIMELINE

Date	Activity	Remarks
February 17 – March 13	Registration to the 2 nd PNSO	Online through Google Forms
March 14	Releasing of acceptance notification and testing site assignment of the students	PNRI Website, Social Media Pages Through student's and coach's emails
April 3	Nationwide simultaneous examination (elimination round)	Onsite, 4 testing sites: Luzon, Visayas, Mindanao, NCR
April 9	Announcement of top 20 students	PNRI Website, Social Media Pages Through student's and coach's emails
April 14	Start of Nuclear Science Training of top 20 students	Online
May 9	Team Selection Test	Onsite; top 5 students will be determined
May 13	Announcement of the national team 4 Official Participants 1 Reserve	PNRI Website, Social Media Pages Through student's and coach's emails



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