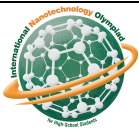


**Official Rules and Regulations for the
International Nano Olympiad for School Students**

(INO-HS 2026)



1. Introduction to the Olympiad and Key Dates

Specialized education and scientific competitions play an important role in nurturing the next generation of scientists, engineers, and innovators. They provide talented students with opportunities to explore emerging fields, develop scientific and problem-solving skills, and engage with real-world challenges beyond the traditional classroom environment.

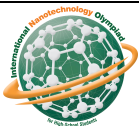
Nanotechnology, as a rapidly advancing and interdisciplinary field, offers tremendous opportunities for addressing global challenges and shaping future technologies. An International Nanotechnology Olympiad can serve as a unique platform for high school students from around the world to discover their potential, exchange ideas, develop innovative solutions, and collaborate across borders.

By bringing together talented young minds, educators, researchers, and experts, the Olympiad aims to foster scientific curiosity, creativity, innovation, and international cooperation, while encouraging students to consider nanotechnology as a pathway toward solving some of the world's most pressing challenges.



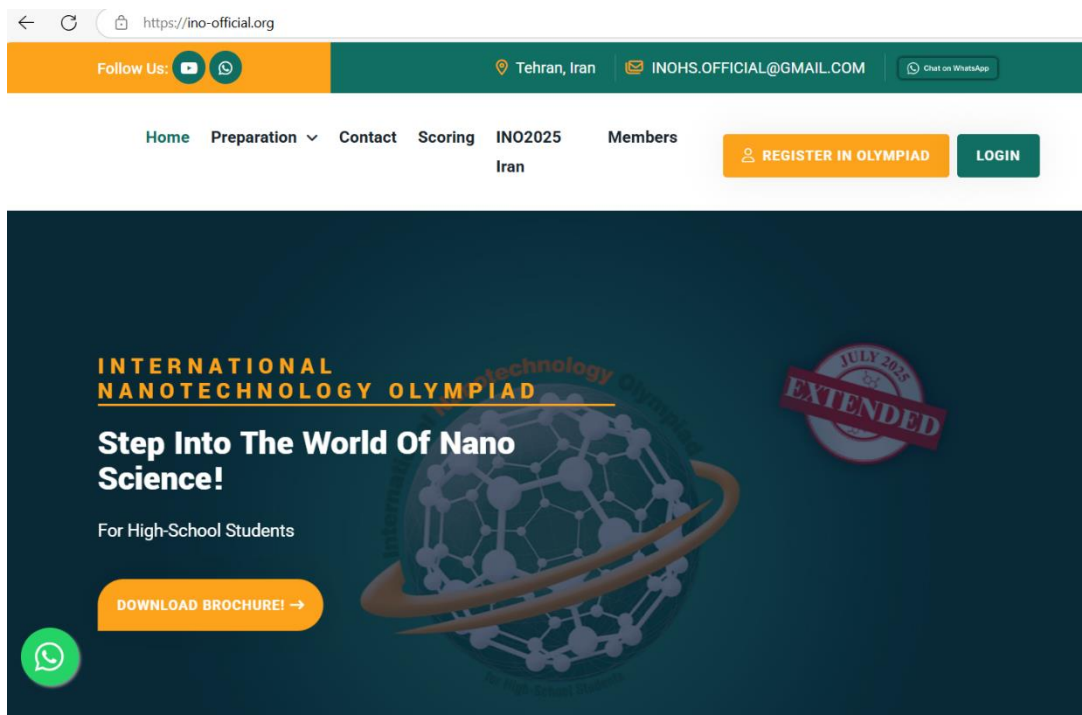
1.1. International Nanotechnology Olympiad for High School (INOHS)

The International Nanotechnology Olympiad for High School (INOHS) is a scientific competition among high school students aged 16 to 19 from various countries, held annually and hosted by one of the member countries. The overarching goal of INOHS is to provide students with a profound underst



anding of the fundamental concepts of nanotechnology and its wide-ranging applications in fields such as medicine and healthcare, environment, energy, advanced materials, and the electronics industry.

In addition to fostering scientific motivation, this Olympiad serves as a platform for nurturing creative, innovative, and capable minds to contribute to the sustainable development of nanoscience and nanotechnology in the future.

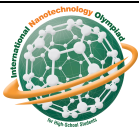


Website:

www.ino-official.org

Main Objectives of the International Nanotechnology Olympiad for High School Students (INOHS)

1. **Promoting friendly scientific and cultural relations** among students from different countries
2. **Creating and expanding an international network** of students, teachers, university professors, and research institutions
3. **Identifying, supporting, and empowering talented students** interested in nanoscience and nanotechnology at a global level



4. **Introducing students to the applications of basic sciences** in modern technologies and raising public awareness about nanotechnology
5. **Expanding scientific and laboratory skills** in the field of nanotechnology with emphasis on teamwork and problem-solving
6. **Enhancing the exchange of nanotechnology knowledge and experience** between developing and developed countries through scientific collaboration
7. **Contributing to the development of a nanotechnology innovation ecosystem** by teaching entrepreneurial concepts to students

Structure and Timeline of INOHS

1. Format

INOHS is held in two main parts:

- **Part 1: Online Multiple-Choice Exam (Theory)** Designed to assess fundamental nanotechnology concepts, scientific understanding, and conceptual analysis.
- **Part 2: Sustainable Business Canvas Submission** Teams complete a form focused on three pillars: social, environmental, and scientific-technological. This stage evaluates technical knowledge, creativity, innovation, and problem-oriented thinking.

2. Team Composition

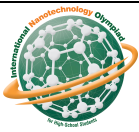
- Each country may nominate **one team of up to 5 students**.
- Students should be selected from top national Olympiad winners in fields like chemistry, physics, or biology.
- The **host country** may nominate **two teams** of up to 5 students each.

3. Participation Process

- Students register via the **official INOHS platform**.
- They must complete **introductory training**, including access to specialized booklets, educational videos, and sample questions.

4. Final Preparation Phase

- Participants receive **advanced training materials**, including specialized books and videos tailored to the challenge theme.



- They then take the **final online exam** and submit the **business canvas form** along with a **5–10 minute video** within a 72-hour window.

4. Participation in INOHS

4.1. Team Composition and Scientific Representatives

Each participating team in INOHS must consist of up to five students and one scientific supervisor. Team members are selected by the national body or scientific committee of each country based on academic criteria, such as being top performers in official national Olympiads. Each country is entitled to nominate one scientific juror and one representative for the International Scientific Committee. These individuals will be officially appointed following review and approval by the INOHS Steering Committee.

International Nanotechnology Olympiad for High-school Students (INOHS) 2025

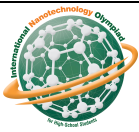
Participating countries

✓ Germany	✓ Australia
✓ United Kingdom	✓ Malaysia
✓ Iran	✓ Saudi Arabia
✓ Thailand	✓ Venezuela
✓ United States	





Participating Countries in the 1st INOHS



4.2. Participant Eligibility

4.2.1. Participants must be high school students or recent graduates who have not yet entered university. (*Eligible age range is 16 to 19 years as of July 1st of the event year.*)

4.2.2. Participants must provide valid digital proof of identity (such as a passport or national identity card) and submit an official declaration or verification from their nominating institution. As the 2026 International Nano Olympiad for High School Students (INOHS) is conducted entirely online, health, travel, and accident insurance are not required for participation.

4.2.3. Only teams officially nominated by recognized national institutions (such as Ministries of Education or other legal educational authorities) are eligible to participate.

4.3. Team Leader Responsibilities and Qualifications

Each team must have a scientific team leader appointed by the national committee of the respective country. The team leader must be fluent in English and possess expertise in nanotechnology or a related scientific field. The team leader shall serve as the official representative of the team throughout the Olympiad and shall be responsible for ensuring compliance with all competition regulations, coordinating team activities, and maintaining official communication with the INOHS Organizing Committee during the online competition.

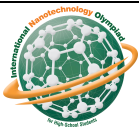
4.4. Costs and Commitments

Participation in the 2026 International Nano Olympiad for High School Students (INOHS) is entirely online. Therefore, participants and their nominating institutions are not responsible for international travel, visa, accommodation, or other in-person participation expenses.

There is no participation or registration fee for the 2026 online edition of INOHS.

Participants are responsible for ensuring they have:

- A reliable internet connection;
- A computer or compatible device capable of accessing the official competition platform;
- Any basic equipment or software required to participate in the online examination and submit the required project materials.



Each participating team shall ensure that all submissions, including the online examination, Sustainable Business Model Canvas, and video presentation, are completed and submitted within the deadlines specified by the Organizing Committee.

All participants will receive free access to the official educational resources provided by INOHS, including training modules, educational videos, reference materials, and other learning resources available through the official INOHS website.

5. Thematic Axes and Final Evaluation Criteria

5.1. INOHS Scientific Domains

INOHS themes are selected based on innovative applications of nanotechnology in addressing global challenges. These topics may fall under key environmental, social, or technological subfields. Selected themes may include:

- Water and wastewater purification and recycling
- Smart soil management and sustainable agriculture
- Clean technologies for healthy air
- Advanced drug development and bio-technologies in healthcare
- Renewable and sustainable energy solutions

Instead of traditional laboratory experiments, teams must complete a **sustainable business canvas form** consisting of three core dimensions:

1. **Social Axis** – Impact on society and culture
2. **Environmental Axis** – Ecosystem compatibility
3. **Scientific-Technological Axis** – Scientific foundation and technical innovation



Four Components of a Sustainable Business Model Canvas

Title	Explanation
Value Proposition	The value and impact of the idea
Revenue Streams	How the idea generates income or ensures sustainability
Eco-Social Costs	Environmental or societal costs imposed by the idea
Eco-Social Benefits	Positive impacts on society and the environment

Evaluation Criteria for the Sustainable Business Model Canvas

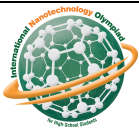
Students must pay close attention to the structure of the sustainable business model canvas and ensure their submissions reflect:

- Scientific value
- Creativity and innovation
- Presentation quality
- Adherence to the business model structure

Criterion	Score
Scientific and technological value	10
Creativity and innovation	10
Presentation and content	5
Business model structure	5

Video Presentation Requirement

Teams must submit a 5–10 minute video introducing their idea, demonstrating a simulation or implementation model, and explaining its scalability.



Final Evaluation of Participants

Final scores will be based on two components:

- **Multiple-choice test (Phase 1):** 70% weight
- **Sustainable business model canvas and video presentation:** 30% weight

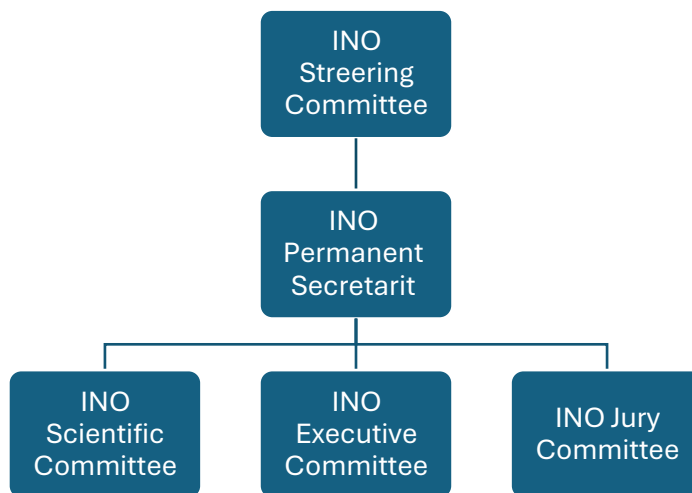
5.2. Determining the Theme

The host country has the privilege to propose the central theme for the next edition of INOHS to the Steering Committee. This proposal will be formally reviewed by the Committee and, if approved, will be publicly announced via the official INOHS website.

Note: The first International Nanotechnology Olympiad for High School Students was centered on the theme of environmental challenges, with a focus on addressing issues related to water, soil, air quality, and ecosystem sustainability.

6. Governance Structure of the International Nanotechnology Olympiad for High School Students (INOHS)

The structure of INOHS consists of the following main components: the Steering Committee, the Permanent Secretariat, the Scientific Committee, INO jury committee, and the executive committee, as shown in the diagram below. The responsibilities and structure of each component are described as follows.



**Organizational Structure of the
International Nanotechnology Olympiad for High School Students
(INOHS)**



6.1. INOHS Steering Committee (INOHS Steering Committee – INOStC)

The INOHS Steering Committee consists of representatives from the founding institutions of the Olympiad. Representatives from countries that are founding members of INOHS are recognized as the initial members of INOStC. Each country has one equal vote. The admission of new countries to INOStC requires unanimous approval from all members.

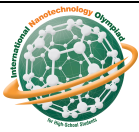
6.1.1. INOStC is the highest decision-making authority of INOHS and is responsible for defining the overall vision, establishing strategic objectives, approving regulations, determining the annual themes, competition framework, organizational structure, and financial policies of the Olympiad.

6.1.2. The Chair of INOStC is elected annually by vote among the members. The responsibilities of the Chair include:

- Managing official decision-making meetings and ensuring the preparation of meeting minutes.
- Organizing in-person and online meetings of INOStC.
- Signing official correspondence and documents related to INOStC.
- Representing INOHS in relevant international events and organizations.
- Supervising the official activities of INOStC.
- In the absence of the Chair, the Vice-Chair assumes the responsibilities of the Chair. The Vice-Chair must be approved by all INOStC members.

6.1.3. Official decision-making meetings require the presence of two-thirds of INOStC members. Final decisions require the affirmative vote of at least half of the present members. In case of a tie, the final decision is made by the Chair.

6.1.4. The official working language of INOStC is English.



6.1.5. INOStC shall hold at least two official meetings annually.

6.1.6. Other responsibilities of INOStC:

- Establishing policies and providing strategic supervision for the implementation of the Olympiad according to approved regulations.
- Approving the final competition framework, organizational procedures, and major decisions proposed by INOPS.
- Selecting the host country for future editions of the Olympiad.
- Reviewing and approving disciplinary decisions, including temporary or permanent suspension of individuals or member countries.
- Validating the credentials of representatives of member countries participating in INOStC.
- Approving the expansion of INOStC membership.
- Officially approving members of the Scientific Committee.
- Reviewing reports submitted by INOPS and providing strategic guidance for future editions.

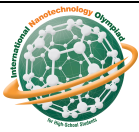
6.2. INOHS Permanent Secretariat (INOHS Permanent Secretariat – INOPS)

6.2.1. The Head of INOPS is appointed by the Iran Nano and Micro Technologies Innovation Council (INIC).

6.2.2. INOHS Permanent Secretariat (INOPS) is the executive, administrative, and coordinating body of INOHS. Under the supervision of INOStC, INOPS is responsible for the continuous management, supervision, and coordination of the Scientific Committee, Executive Secretariat, and Jury Committee to ensure proper implementation of the Olympiad.

6.2.3. Responsibilities of INOPS:

- Supervising the overall implementation of the Olympiad in accordance with approved regulations and decisions of INOStC.
- Coordinating the activities of INOStC, Scientific Committee, Executive Secretariat, and Jury Committee.
- Monitoring the performance of the Executive Secretariat and Scientific Committee and reporting progress and outcomes to INOStC.



- Ensuring fair and transparent evaluation of team performance through coordination between the Scientific Committee and Jury Committee.
- Supervising the organization and operation of the Jury Committee, including judge selection procedures, evaluation processes, and submission of final evaluation reports.
- Reviewing and verifying competition results after confirmation by the Scientific Committee and Jury Committee and submitting final results to INOStC for approval.
- Collecting, archiving, and publishing previous Olympiad documents according to disclosure policies.
- Managing and supervising the official Olympiad website in coordination with relevant committees.
- Reviewing applications from countries interested in hosting the Olympiad and preparing qualification assessment reports for INOStC.
- Preparing the final report of each Olympiad edition within two months after completion and submitting it to INOStC.
- Facilitating communication and networking between INOHS and relevant scientific, educational, technological, and international organizations.
- Supporting the implementation of INOStC decisions through coordination with relevant committees and institutions.
- Monitoring compliance with Olympiad regulations and reporting possible violations to INOStC for decision-making.

6.3. INOHS Executive Secretariat (INOHS Executive Secretariat – INOES)

6.3.1. National nanotechnology development institutions, such as science and technology parks, universities, research centers, or other relevant organizations in the host country, may serve as the INOHS Executive Secretariat (INOES). INOES operates under the supervision and coordination of INOPS.

6.3.2. Official duties of INOES:

- Organizing and implementing the Olympiad according to approved regulations under the supervision of INOPS.
- Providing online and in-person training programs for selected teams in coordination with INOPS. Educational content must be approved by the Scientific Committee.
- Preparing and managing the schedule before, during, and after the Olympiad.
- Providing official information regarding the host country and competition procedures to participants.



- Updating official website content in coordination with INOPS.
- Supporting the online competition process through participant registration, communication, and technical coordination.
- Preparing medals, certificates, and awards.
- Announcing official results approved by INOSTC during the closing ceremony.
- Organizing opening and closing ceremonies.
- Preparing final documentation of the edition, including photos, videos, and official reports.

6.3.3. Hosting requirements for INOES:

- Ensuring participant safety, data security, and effective communication throughout the online competition process.
- Providing reliable digital infrastructure, virtual learning resources, and technical support to ensure successful competition implementation.

6.3.4. If no country volunteers to host the Olympiad, INOSTC will designate a member country as host, prioritizing countries that have not hosted recent editions.

6.3.5. In case of force majeure in the host country, INOES must notify INOPS within one week. INOPS will report the situation to INOSTC, which will decide appropriate actions, including:

- Cancellation of the current edition.
- Transfer of hosting responsibilities to another volunteer country.
- Postponement of the Olympiad to another date.

6.4. INOHS Scientific Committee (INOHS Scientific Committee – INOScC)

6.4.1. Members of the Scientific Committee may be selected annually from INOSTC members or recommended experts. After approval by INOSTC, INOPS will officially establish and coordinate the activities of the Scientific Committee.

6.4.2. The Chair of the Scientific Committee is elected annually from among its members and approved by INOSTC.

6.4.3. Responsibilities of INOScC under the supervision of INOPS:

- Reviewing and updating technical regulations and judging criteria.



- Developing scientific and educational content related to the annual Olympiad theme.
- Providing technical recommendations regarding competition structure and evaluation procedures.
- Supporting the Jury Committee in scientific evaluation processes.
- Reporting scientific outcomes and recommendations to INOPS and INOStC.

6.5. INOHS Jury Committee (INOHS Jury Committee – INOJuryC)

6.5.1. The Jury Committee operates under the supervision and coordination of INOPS and evaluates participant projects and reports according to criteria approved by the Scientific Committee and INOStC.

6.5.2. Responsibilities of INOJuryC:

- Evaluating team reports, projects, and competition outputs based on approved criteria.
- Ensuring fair, transparent, and scientifically valid evaluation.
- Preparing evaluation reports and submitting final results to INOPS.
- Participating in official jury meetings and result validation procedures.

6.5.3. Judges are selected based on recommendations from the Scientific Committee, coordination with INOPS, and approval by INOStC. Their expertise must cover relevant scientific, technological, and practical fields.

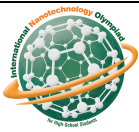
6.5.4. The number of judges is determined annually by INOPS in coordination with the Scientific Committee and generally ranges from 6 to 10 members.

7. INOHS Competition Model

7.1. After the announcement of the annual Olympiad themes, countries have up to one month to declare their readiness to INOPS.

7.2. The INOHS competition is held in two stages. In both stages, participating teams become familiar with nanotechnology and its application in solving global challenges.

7.3. The final online exam will be open for 24 hours, allowing countries to take the exam at different times. After the exam period ends, students will have 72 hours to complete the Sustainable Business Model Canvas and submit 5 to 10-minute videos. After the deadline, a 24-hour grace period will be provided for video submission, but students



should note that they will lose 50% of the score for this stage. If a student does not participate in this stage, they will lose 30% of their exam score.

7.4. Teams eligible to participate in the first stage must register on the official INOHS website and complete the required forms.

7.5. In the first stage, participants take a standardized theoretical examination online from their respective countries. The exam includes multiple-choice questions covering fundamental concepts of nanotechnology, nanomaterial synthesis approaches, characterization and analytical tools, and various applications of nanotechnology. The 2nd International Nanotechnology Olympiad for High School Students is organized as a fully online, non-attendance competition, enabling students to participate remotely.

7.6. After qualifying for the global and international stage (the final stage), the competition will be held over 4 days (24 hours for the online multiple-choice exam, 72 hours for completing the Business Model Canvas and submitting videos). Teams are expected to develop a challenge aligned with the proposed theme. The themes may vary each year and include the following, which the Steering and Scientific Committees will decide for the following year:

- Water purification and environmental issues
- Energy
- Health
- Construction
- And other related fields

8. Competition Judging

8.1. Judging in the International Nanotechnology Olympiad for High School Students (INOHS) is based on the following criteria:

1. Multiple-choice exam — 70 out of 100 points
2. Sustainable Business Model Canvas exam — 30 out of 100 points

8.1.1. Evaluation criteria for the Sustainable Business Model Canvas (5 to 10-minute video presentation of the canvas):

- Value proposition



- Revenue streams
- Environmental and social costs
- Environmental and social benefits

8.1.2. Additional explanation:

In the content of the Business Model video, in addition to the four titles above, the following items also carry points and must be included in the Sustainable Business Model:

- Technical knowledge value
- Creativity and innovation
- Presentation method
- Content quality and business model structure

8.2. All sections are evaluated individually.

8.3. In case of any objection, the team leader is allowed to submit the objection to the INOHS Scientific and Judging Committee (INOScC). The committee will make the final decision by voting, and in case of a tie, the Chair of INOScC will make the final decision. After the results are approved by the Steering Committee (INOScC), the overall team rankings will be announced and will no longer be subject to objection or change.

9- Awards

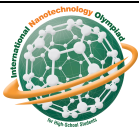
9.1. The final stage awards of INOHS include medals/trophies and certificates of appreciation for the selected participants, which are proposed by the host and approved by the INOScC Steering Committee.

9.2. In total, medals will be awarded as follows:

9.2.1. Gold medals will be awarded to the top 10 participants.

9.2.2. Participants who achieve at least 65% of the average score of the top 10 will be eligible for silver medals, and those who achieve at least 50% of this average will be eligible for bronze medals.

9.3. Participants who do not qualify for any medal will receive an official honorary diploma.



10- Validity of the Regulations:

10.1. The content of this executive document is subject to revision and may only be modified by the Steering Committee of the International Nano Olympiad for High School Students (INOHS). All potential changes will be available on the official INOHS website.

10.2. All INOHS participants and other officials must adhere to this executive document. Consequently, violation of any provision of this document may, upon determination of a breach by a participant, result in disciplinary action against the violator based on the decision of the Olympiad Executive Committee.