



steelChallenge-19 Rules

By registering for steelChallenge-19, you agree to the following rules:

- 1.0 Participants** Participation in steelChallenge-19 is for individuals who are either students or in industry.
- 1.1 Student The student category is for individuals who are enrolled in studies at an accredited academic institution at the time of the registration period, up to the time of the Regional Championship.
- Enrolment may be full-time or part-time.
- Students who are on a temporary work term, or internship, at the time of steelChallenge-19 shall register in the student category.
- Part-time students who are permanently working in the steel industry or other industry shall register in the industry category.
- 1.2 Industry The industry category is for individuals in steel companies and the steel industry supply chain.
- The supply chain includes companies who supply the steel industry, who manufacture steel, or are customers of the steel industry.
- Individuals who are primarily employed in the steel industry, but may also be a student, shall register in the industry category.

Individuals who are no longer a student, and not currently employed in a steel company or the steel industry supply chain, are welcome to register in the industry category.

- 1.3 Teams There is no team participation in steelChallenge-19. Participation is as an individual only.
- Participants may collaborate in groups to study and practise in preparation for steelChallenge-19.
- 1.4 Previous Finalists Participants who were awarded as Regional Champions and/or competed as World Championship Finalists in previous steelChallenge competitions are not eligible to participate in steelChallenge-19.
- 1.5 Russian Federation Due to sanctions in place with respect to the Russian Federation, citizens and residents of the Russian Federation are not eligible to register and compete in steelChallenge-19.
- 2.0 The Challenge** steelChallenge-19 will utilise steeluniversity's Electric Arc Furnace and Secondary Steelmaking simulators. The simulators will be integrated for the competition and the integrated simulator will be made available for practise prior to the competition.

Competitors are tasked to produce a grade of steel meeting technical requirements at the lowest cost per tonne. A grade of steel specifically designed for steelChallenge-19 will be used in the Regional Championship.

Competitors will first produce steel in the Electric Arc Furnace simulator and then refine the steel in the Secondary Steelmaking simulator. A 'heat' from the Electric Arc Furnace simulator can only be used once in the Secondary Steelmaking simulator.

Note the simulation is a simplified model of complex real-life processes and therefore will inevitably contain some deviation from actual operating practices and outcomes.

- 2.1 Runs Competitors may undertake up to a maximum of 150 'runs' of the combined simulators during the 24-hour competition period.
- A 'run' starts with initiation of the Electric Arc Furnace simulator and will count towards the maximum allowable 'runs' regardless of whether the 'run' is successful.
- A 'successful run' is concluded when the Secondary Steelmaking simulation has completed, meeting the simulation criteria for the case study, the result has been registered in the competition database, and

the competitor has received a confirmation of successful completion. The single best 'successful run' of each competitor will be used to determine their score and placement in the Regional Championship. Therefore, to qualify as Regional Champion, at least 1 'successful run' must be successfully completed.

3.0 Registration

Each competitor must register for steelChallenge-19 on the steeluniversity website. Registration will be open until the end of the Regional Championship at 12.00 UTC on 27 November 2024.

To complete the registration, each individual must provide their name, organisation, country of residence, email and telephone number. Each individual must also indicate whether they are participating in the student or industry category.

Each competitor is assigned to a competition region based on the country of residence provided. The country of residence should reflect where the competitor is normally based at the time of the Regional Championship.

If a competitor is on a temporary assignment at the time of the Regional Championship (e.g. a student doing an internship), the person should register based on their primary residence. Students who are taking an academic term at a different educational institution, shall register in the country of their home educational institution.

3.1 Registration Process

Participants first need to login to their steeluniversity website account. If the participant does not have an account, they need to create one.

After login to their account, the participant then registers for steelChallenge-19. After registration, the participant will receive an email to confirm their registration in steelChallenge-19.

If the confirmation email is not received, contact steeluniversity via email at support@steeluniversity.org.

Participants from organisations who use steeluniversity's steelHub application may also be able to register directly through their organisation's Learning Management System.

3.2 Faculty Advisor

Students who work with a faculty advisor may declare the name of the advisor during registration and up to any time until the start of the Regional Championship. The faculty advisor must be an active teacher on the staff of the academic institution where the student is enrolled at

the time of the Regional Championship. worldsteel may request proof of the faculty advisor's status with the academic institution.

Declaration of the faculty advisor is required for the faculty advisor to be eligible for recognition by steeluniversity.

The faculty advisor must be declared in the student's registration profile prior to the start of the steelChallenge-19 Regional Championship to be eligible for the prizes. Declaration, or substitution, of the faculty advisor after the Regional Championship has started will not be accepted.

- 3.3 Multiple Registrations Each competitor may register only once for steelChallenge-19. Competitors found to have registered multiple times (e.g. with different email addresses) will be disqualified.
- 3.4 False Information Any competitor who provides false information during steelChallenge-19 (e.g., providing a false name during registration) will be disqualified.
- 3.5 Fee The fee for student registration is €14.49 (plus VAT if applicable to those people located in the European Union).

The fee for industry participants is €29.99 (plus VAT if applicable to those people located in the European Union) per person.

The registration fee must be paid prior to participation in the Regional Championship.

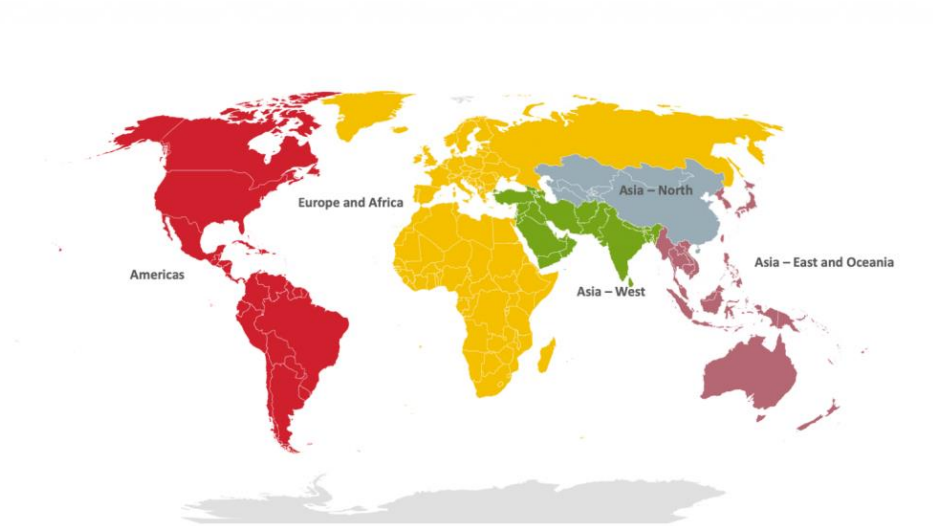
There is no refund of the registration fee.

- 3.6 Promo Codes Sponsors of steelChallenge-19 are provided with an allotment of 'promo codes' for industry and student registration. Recipients of a promo code from a sponsor may register for steelChallenge and use the code to bypass the registration fee payment process.

- 4.0 Regional Championship** Competitors registered for steelChallenge-19 will compete in the Regional Championship. The regions for steelChallenge-19 are:

- Americas,
- Europe and Africa,
- Asia – West,
- Asia – North, and
- Asia – East and Oceania.

The Regional Championship will take place over a 24-hour period starting from 12.00 UTC on 26 November 2024.



- 4.1 Internet Access Competitors should ensure they have a good quality and stable internet connection to participate in steelChallenge-19.

steeluniversity shall undertake best efforts to ensure the competition is accessible via its websites and servers.

steeluniversity shall not accept responsibility for lack of access to the website due to any internet issues beyond our control.
- 4.2 Simulation Play Each competitor must login via steeluniversity’s website at www.steeluniversity.org or access from their organisation’s Learning Management System to participate in the Regional Championship.
- 4.3 Simultaneous Run Each competitor may only have a single login active at any given time and may only run the simulation in a single browser window at any given time.

All runs that occur simultaneously will be disqualified.
- 4.4 Audit of Results Upon conclusion of the Regional Championship, steeluniversity will audit the results to validate successful runs of the simulation. This may take up to 7 days. The time to audit results may be extended upon request of the Audit Team.
- 4.5 Regional Champions The top participant in the student category in each region and the top participant in the industry category in each region will be considered for the Regional Champions title.

Candidates will be contacted within the auditing period to confirm their identity, country of residence, affiliation, and eligibility for the competition. This confirmation is required to be completed within 24 hours of being contacted by steeluniversity.

In the event a participant is deemed not eligible, provides false or incomplete information, or fails to respond to the confirmation in time, the participant will be disqualified and the next highest ranked competitor in the region will be considered for the Regional Champion title. If the participant complies all requirements, they will be awarded the Regional Champion title.

4.6 Participation in World Championship

The participation in the World Championship is in person. The only exception for not participating in person is due to government restrictions for departing the country of origin or entering the country where the event is hosted. The participant must have a definition of their attendance status at least four weeks before the World Championship.

In case a participant cannot attend the event in person, the organization may designate a location from which the participant must to compete, under the supervision of a person assigned by the organization.

The organization will provide a device, equal or similar to the one used by all participants, for use in the competition.

If the participant is unable to attend to the designated location, or if it is not possible to provide a device for the competition, the online participation will not be allowed.

5.0 **World Championship**

The World Championship Finalists will participate in the World Championship scheduled for April 2025. This round of the competition will use the steeluniversity combined Electric Arc Furnace simulator and the Secondary Steelmaking simulator during a 3-hour period.

The challenge for this round of competition will be to produce the single best result for the combined simulation. Finalists will be allowed to reuse 'heats' from the Electric Arc Furnace simulation as an input to the Secondary Steelmaking simulation.

5.1 World Champions

The results of the World Championship will be audited, and the winners declared during an Award Ceremony. There will be a World Champion in each of the student and industry categories.

- 5.2 Location The World Championship will be held in person with attendance of all Finalists at a location to be confirmed, in April 2025 at the time of World Steel Association's meeting of its Board of Members.
- If international travel is not feasible to allow the World Championship to be conducted in person, for any reason, and as decided by World Steel Association, the World Championship will be held online and accessed via the steeluniversity website.
- 6.0 Prizes** Prizes will be awarded to the qualified Regional Champions and the World Champions in each of the student and industry categories. The prize breakdown is:
- All participants receive
- Access to the Electric Arc Furnace and Secondary Steelmaking courses and simulators
 - steeluniversity certificates upon successful completion of the Electric Arc Furnace and Secondary Steelmaking courses
 - steeluniversity certificate upon completion of a successful run of the competition simulation
 - Ranking in the Regional Championship
- 6.1 Regional Champions Regional Champions will receive
- €500,
 - Regional Champion certificate, and
 - Profile featured on the steeluniversity website.
- 6.2 World Championship Finalists World Championship Finalist will receive:
- Travel allowance to participate in the World Championship,
 - Tablet after use at the World Championship,
 - Award ceremony with the worldsteel Board of Directors at the World Championship,
 - Champions dinner,
 - Visit to steel industrial plant, and
 - Profile featured on the steeluniversity website.
- 6.3 World Champions World Champions will receive:
- €500,
 - World Champion certificate, and
 - steelChallenge-19 trophy.

- 6.4 Faculty Advisors Faculty advisors of student participants who qualify for the World Championship are eligible for the following prizes:
- steeluniversity certificate of appreciation,
 - Profile featured on the steeluniversity website,
 - Travel allowance to attend the World Championship.
 - Recognition in the Award Ceremony,
 - Champions dinner, and
 - Visit to steel industrial plant
- 6.5 Taxes Winners of prizes from steelChallenge-19 are responsible for any reporting of income and paying any applicable taxes, or other government charges as may be applied to them, that may be due from acceptance of the prizes.
- 6.6 Travel allowance The travel allowance includes a three-night stay in the steelChallenge hotel, economy class flight to World Championship destination, and up to €300 to be used exclusively for visa issuing costs, transportation to and from airports, and meals.
- 7.0 Schedule** The summary of the competition schedule is:
- 02 September 2024 – Registration opens
 - 26 November 2024 – Regional Championship
 - 04 December 2024 – Notice of results
 - 07 April 2025 – Reception
 - 08 April 2025 – World Championship
 - 08 April 2025 – Award Ceremony
 - 08 April 2025 – Champions Dinner
 - 09 April 2025 – Visit to industrial plant
- The dates in April 2025 will be co-ordinated with the worldsteel Board of Member meeting.
- 8.0 Fair Play** Simulation results which exploit unexpected and/or unrealistic behaviours in the simulator code will be considered invalid. Any attempt to modify the simulator code will result in disqualification from steelChallenge-19.
- 8.1 Notification Competitors who discover an unexpected and/or unrealistic behaviour in the simulator code, during the competition or the practice period, may contact steeluniversity to request a judgement on whether the behaviour is permissible. Contact steeluniversity by email at support@steeluniversity.org.
- During the Regional Championship, a response will be provided within 2 hours.

- 8.2 **Enhancement** The purpose of steelChallenge is to encourage the development of fundamental ferrous metallurgy knowledge.
- Use of computational techniques to optimise simulator performance is not permitted. For example, using computer code to run the simulators thousands of times to optimise the output is not allowed.
- A participant found to violate this rule will be disqualified.
- 9.0 **Disputes** steeluniversity shall endeavour to resolve any disputes arising from the competition. Decisions of steeluniversity shall be final.
- 10.0 **Language** Registration for steelChallenge-19, the competition rules and the simulators used in the Regional and World Championship will be available in English, Chinese (simplified), and Spanish.
- All other aspects of the competition, including support, will be conducted in English. The English language version of the Rules shall be definitive.
- 11.0 **Personal Information** By registering for steelChallenge-19, competitors agree the personal information provided may be used by World Steel Association, its members, and sponsors of steelChallenge-19 to analyse the outcomes of the competition, to promote the competition, and to be contacted with respect to this competition.
- For more detail about the treatment of personal information, refer to the World Steel Association privacy policy available at <https://www.worldsteel.org/global/privacy-policy.html>.
- 12.0 **Personal Conduct** World Championship Finalists will be attending a World Steel Association event. By accepting the invitation to the World Championship, the Finalist agrees to conduct themselves with the highest integrity.
- 13.0 **Support** Questions about steelChallenge-19 may be directed to support@steeluniversity.org.