

# Cast in Steel 2026 Season 2

## Horseman's Axe

Cast in Steel 2026 Season 2 will be a competition to produce a Horseman's axe using casting.

[Robert the Bruce](#), King of Scotland, used an axe to defeat [Henry de Bohun](#) in single combat at the start of the [Battle of Bannockburn](#) in 1314. Given that Bruce was wielding the axe on horseback, it is likely that it was a one-handed horseman's axe. They enjoyed a sustained revival among heavily armored equestrian combatants in the 15th century.

Horseman's axe, circa 1475. This is an example of a battle axe that was tailored for the use of a mounted knight. Note the hole on the haft for the accommodation of a leather strap to be passed over the wrist, the belt-hook for ease of carrying, and the langets. This example dates from the last quarter of the 15th century and is 69 cm (27 inches) long. The wooden haft is modern. The blade's punched decoration suggests German make. Variations of this basic design include the fitting of a hammer face instead of a pointed pick behind the blade. \_\_

[https://en.wikipedia.org/wiki/Battle\\_axe](https://en.wikipedia.org/wiki/Battle_axe)



## COMPETITION REQUIREMENTS

Teams produce a Horseman's Axe exploiting the casting process. Students may submit a preliminary plan to register, get advice, and make sure to get all updates. All teams must:

1. Make their Horseman's Axe
  - Your axe should weigh no more than 1.5 kg (3.3 lbs.)
  - Your axe should not be longer than 800mm (31.5 in.) in overall length.
2. Submit a Technical Report for their project of less than 10 pages.
3. Produce a Project Video, not to exceed 5 minutes.

***All axes submitted for the competition become property of SFSA.***

Teams must have:

1. Students who will design, build, and test their Horseman's axe. All team members must be students at a university, college, VOYECH or trade school. Teams are limited to 5 members.
2. A faculty sponsor to help the team.
3. An industrial partner familiar with steel castings.

## AWARDS

Each axe entry will be evaluated in 5 categories in the competition:

1. Design and Process from technical report
2. Authenticity from the technical report
3. Casting Creativity in their production
4. Project Video documenting the team and their project
5. Performance based on testing and expert evaluation

**CIS 2026 Grand Prize will be \$25,000 for the winning team**

## IMPORTANT EVENTS & SUBMISSION DATES

**Friday, December 5, 2025**

Proposed teams, and preliminary plan requested.

**Friday, March 27, 2026**

Project video, technical report, are due.

**Friday, March 27, 2026**

Horseman's axe shipped by.

**April 13-17, 2026**

Cast in Steel performance testing

## TECHNICAL REPORT MUST CONTAIN:

Your technical report must not exceed 10 pages. (This will include your cover page and resources pages so clear and concise writing is necessary) An appendix of figures and tables are allowed and do not count in the page total.

1. Cover Page:
  - Must use the outline of this [cover page](#). An example cover page is included in the document.
2. Address the following:
  - State the reason for the competition: "SFSA has created this competition to encourage students to learn about making steel products using the casting process and applying the latest technology available". This should be in the introduction of your Technical Report.
  - \*The historical background and accuracy of your axe and explain why your axe is an authentic Horseman's axe.
  - \*Your use of casting technology to add value
  - \*Your design process and the steps you took to get to your final product.
  - \*Your use of NDT to ensure the integrity of your axe.
  - \*Your final results should show that it meets contest requirements (state the final length, weight, and materials of your axe).

Present each in the one-page executive summary as part of your technical report.

3. Other suggested topics that can be addressed in your technical report:
  - What metallurgical decisions were made with respect to your axe.
  - What type of casting process was selected, what led you to that decision, and the casting process steps you used while creating your axe.
  - What kind of inspection including NDT and testing your axe was subjected to before submission.

## READY TO COMPETE?

**[CLICK HERE TO REGISTER](#)** your team for the CIS 2026 competition.