



Student Steel

Bridge Competition
2019 Club Starter Guide



# Student Steel Bridge Competition 2019 Club Starter Guide

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## Student Steel Bridge Competition The Basics

### What is the Student Steel Bridge Competition?

For the Student Steel Bridge Competition, each student team develops a concept for a scale-model steel bridge to span approximately 20 feet and to carry 2,500 pounds according to competition rules. Civil Engineering students are challenged to an intercollegiate competition that supplements their education with a comprehensive, student-driven project experience from conception and design through fabrication, erection, and testing. This experience culminates in a steel structure that meets client specifications and optimizes performance and economy. The Student Steel Bridge Competition increases awareness of real world engineering issues such as spatial constraints, material properties, strength, serviceability, fabrication, erection processes, safety, aesthetics, project management, and cost. Success in competition requires application of engineering principles and theory, and effective teamwork. Future engineers are stimulated to innovate, practice professionalism, and use structural steel efficiently.

## What is a Student Steel Bridge Competition Club?

There are a variety of ways Student Steel Bridge Competition Teams are structured. One of them is through an SSBC Club. The club can simply be a platform to gather as an SSBC team on school property, or can extend to include other events and programs such as local fabrication shop tours, attending AISC sponsored seminars and being student members of AISC. We also encourage you to apply for our Adopt a School Program! This is your club and you have the freedom to structure it as you wish. We are here as a resource!

#### Who can start a club?

An SSBC Club may be founded at any college or university located in the USA. The club shall consist of undergraduate and graduate students enrolled at that college or university for at least one academic term during the 2018-2019 academic year.

## Why join the Student Steel Bridge Competition Club?

The Student Steel Bridge Competition is a fun and exciting way for students to extend their classroom knowledge to a practical and hands-on steel-design project. The project grows your interpersonal and professional skills, encourages innovation, and fosters impactful relationships between students and industry professionals. Beyond the benefits related to the competition, students will also benefit from exposure to the structural steel industry as well as AISC resources and events.

# Student Steel Bridge Competition Steps to Start your Club

1. Recruit a Team Recruit a minimum of 3 people to help you get the Club up-and-running. Share this guide with your new recruits so you can work together to set up your Club.
2. Find a Faculty Advisor Find an advisor. Your ideal candidate is likely to be a member of the engineering faculty/staff at your university who has a strong commitment to working with young people and is well-respected among the students. Please review our faculty advisor expectations to learn more.
3. Get Approval from Your School Find out what requirements your school has for starting a club. This is especially important if you want to receive school funding or resources, such as meeting rooms and permission to hold events on campus. Your school may also require you to have: a Club Constitution, club leadership positions, or a presentation that articulates the benefits of having a Student Steel Bridge Competition Club in your school. – all of which you will find in this SSBC Club starter guide.
4. Register for the Regional Events All members of your Student Steel Bridge Competition Club are considered to be a team competing in the regional events and must be registered with AISC. If your school's team plans to compete in the upcoming Regional Event in your area, the team's Faculty Advisor must complete the team registration form by December 31, 2018.
3. Hold the First Club Meeting Review the 2019 SSBC Rules and start determining your plan of action for your bridge design, sponsorship/ funding and team structure. Collect contact information for all your members so that you can publicize the next meeting. Set regular meeting times and map out what you want to accomplish over the course of the year. Provide information to Club members about how they can sign up to be an AISC Student Member. (student membership is free!) If applicable per your school requirements, prepare for elections: inform members about available positions and request applications.
<b>6. Keep in Touch with AISC</b> The Club and faculty advisor should make sure that they keep in touch with AISC. Student Steel
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Bridge Competition Clubs are ever growing and changing so your feedback will ensure a better working relationship for all and more support in the future! Please reach out to AISC's Special Event Planner, Sadie Brown at brown@aisc.org with any questions, concerns, or student club feedback.

## Student Steel Bridge Competition Resources Overview

## Plan Your Project

A guide to help you with task management for your bridge.

## Presentation for School Administration

A presentation to introduce and explain SSBC Clubs to school administration. Use when seeking approval from school administration to start an SSBC Club.

## **Funding**

Funding your bridge project can be a cumbersome task. We offer three ways for you to fund your Club expenses.

## **Faculty Advisor Expectations**

Please review our faculty advisor expectations to learn about the role

## Sample Club Position Descriptions

Unsure of how to structure your club? Use our sample position descriptions as a starting point.

## Sample Club Constitution Template

While a Club constitution is not required by AISC, many schools require clubs to submit an official club constitution before being approved as an official school organization. We've created an SSBC Constitution template to assist you with this task. You can change it to fit the general structure of your club.

## **Branding Guide**

While your club is a separate entity of SSBC, we encourage you to follow our branding guidelines on all external communications: Together, through consistent usage and branding, we can communicate a unified message.

## Social Media

Resources on how to best utilize social media for your club!

## Student Steel Bridge Competition Plan out your Project

For a successful performance at the Regional Event and National Finals, it's important to get started early! Below is an example timeline to ensure your club has the resources necessary, is properly registered, and has enough time to practice constructing your bridge for competition. \*This timeline may vary depending on school calendar and date of Regional Event

#### September

- Establish local SSBC Club/ Team
- Create budget and form fundraising plan
- Set specific team assignments
- Identify fabrication and storage location and receive approval from facility if needed
- Hold first club meeting

#### September - December

- Design your bridge starting with initial concepts and refine through iterative process
- Solicit for sponsorships and financial support
- Attend AISC seminars, fabrications shop tours, professional events

#### December

- Register club for Regional Event
- Finalize bridge design

## January - March

- Work on bridge fabrication
- Make travel arrangements for Regional Event (if applicable)
- Continue solicitation for sponsorships and financial support

#### March

- Finalize and submit club roster.
- Practice timed bridge construction

## April

• Showcase your hard work at the Student Steel Bridge Competition - Regional Event!

## May (Pending advancement at the Regional Event)

- Make travel arrangements for National Finals
- Make bridge modifications as allowed in the SSBC Rules
- Practice timed bridge construction
- Showcase your hard work at the Student Steel Bridge Competition National Finals!

## Student Steel Bridge Competition Presentation for School Administration

When seeking approval from school administration to start an SSBC Club, creating a powerpoint presentation is a great way to introduce and explain the benefits of SSBC. We have created a presentation template for you to use.

The Speaker Notes consist of recommended content to be presented. Facilitators are not expected to read word for word. Where appropriate, feel free to change the wording to better suit your Club goals and personal delivery style.





Download Here.

## Student Steel Bridge Competition Funding Resources

## **AISC Funding**

## Regional Events

Teams registered to participate at a Regional Event will receive \$500 in funding from AISC. This funding is provided in the form of a check and will be mailed once your Faculty Advisor registers your team for a regional event. Additionally, each faculty advisor will receive hotel reimbursement for their individual stay while attending the regional event. Students will not receive hotel reimbursement by AISC.

#### **National Finals**

Invitations to the National Finals are extended to the top performing teams at each Regional Event. (See Section 4 of the Rules for specifics on eligibility.) Each team that qualifies for the National Finals receives \$500 from AISC. This funding is provided in the form of a check and is presented at the Captains' Meeting at the National Finals.

## **School Funding**

Clubs are encouraged to request additional funds from their college/ university or engineering department. Our informational powerpoint template may be altered and used for matters of requesting additional funding.

## Club Solicitation and Sponsorships

In addition to AISC and School funding, we encourage your club to raise funds for your Club expenses through fundraisers and sponsorships.

## **Local SEA Chapters**

We encourage you to reach out to your local SEA chapter for member support!

#### **Fabricator Solicitation**

To assist your SSBC Team in securing partnerships with local fabricators, please fill out this fabricator partnership request form. Once your solicitation request is submitted, AISC will provide you with a plan of action for your ask, including contact information, letter templates, and more. This will ensure your team has the most accurate information prior to making your solicitation ask and will provide you with items such as solicitation history, brand use, donor intent, and solicitation language.

## **Host Funding**

If you are interested in hosting a future regional event or national finals, AISC provides additional funding for host schools. Please contact Sadie Brown at <a href="mailto:brown@aisc.org">brown@aisc.org</a> for more information

## Student Steel Bridge Competition Faculty Advisor Expectations

The ideal candidate for faculty advisor is likely to be a member of the engineering faculty/staff at your university who has a strong commitment to working with young people and is well-respected among the students.

#### **Duties**

The Faculty Advisor's duties include:

- Submit a team registration form by December 31, 2018.
- Verify that all students on the team are students enrolled at your college/ university for part of or all of the 2018-2019 academic year and submit a roster of students to AISC by March 1, 2019. A roster template is provided here as a resource.
- Promote an inclusive and positive environment for all students participating in the program where learning is the desired outcome.
- Encourage students to make design decisions and fabricate their bridge on their own as much as possible in order to maximize learning.
- Attend the Regional Event with the Club or send a substitute faculty member in their place.
  (AISC is offering to provide hotel reimbursement to each SSBC team's Faculty Advisor to
  travel with their team to attend their Regional Event. Further information on this can be found
  here.)
- Ensure that students exhibit good sportsmanship and professional behavior at regional and national levels of the SSBC in order to give the Club the opportunity to participate in future competitions.
- Assist students in fostering relationships with industry professionals through local fabricator introductions, and if applicable, AISC seminars, networking events, and NASCC: The Steel Conference
- Club meetings: Attend Club meetings, keep Club informed about school/institutional matters, give a report during Club meetings when appropriate, respect and encourage all Club functions and assist with risk management decisions
- Maintain regular contact with AISC
- Help maintain history of the Club from year to year
- Assist Club with election concerns
- Recognize Club members for achievement and commitment

# Student Steel Bridge Competition Sample Position Descriptions

#### President

- Call, preside over and adjourn all meetings of the club
- Oversee all club activities, events, and fundraisers
- Maintain regular contact with faculty advisor
- Be aware of financial matters pertaining to Club
- Coordinate Executive Board transition
- [Insert any additional position responsibilities.]

#### Vice President

- Assume the duties & responsibilities of President if s/he is unable to do so
- Preside over meetings when the President is not able to attend
- Organize the 'Adopt a School' relationship with a local fabrication shop.
- Assist the President in all club activities and take on other duties as required
- [Insert any additional position responsibilities.]

#### Treasurer

- Manage all fiscal matters related to the club
- Help plan and organize all club fundraisers/ sponsorship solicitations
- Liaise with the school financial office/student government with matters pertaining to funds for the club
- Maintain a financial history of the Club
- Club meetings: Report to Club officers/members on status of funds
- Maintain regular contact with faculty advisor and president regarding Club's finances
- [Insert any additional position responsibilities.]

### Secretary

- Record minutes of all club meetings and make the minutes available to members
- Maintain all official club correspondence
- Maintain a membership list of all official members
- Keep team informed of any changes to the 2019 SSBS Rules
- [Insert any additional position responsibilities.]

#### Historian/Public Relations Officer

- Publicize all club activities
- Attend all club activities and record events
- Maintain any media that is shared on the clubs website, Facebook, Instagram, etc.
- [Insert any additional position responsibilities.]

# Student Steel Bridge Competition Sample Club Constitution Template

#### Article I.

#### Name

1. The name of the club shall be [Student Steel Bridge Competition Club], hereinafter "Club."

#### Article II.

#### Authority

1. The Club is considered an independent entity functioning under the guidance of AISC and SSBC.

#### Article III.

#### Purpose

Preamble for the Charter of the [Name of University/ College] Student Steel Bridge Club: A group of undergraduate and/or graduate students who work to design, fabricate, construct and test a 1:10 scale steel bridge to compete in the annual AISC Student Steel Bridge Competition.

#### Article IV.

### Membership

- 1. Membership in The Club will be equally available to all undergraduate and graduate students enrolled at [School name] for at least one academic term during the 2018-2019 academic year. There may not be any discrimination based on race, religion, political views, nationality, ability, sexual orientation, age, etc.
- 2. The Club will have a minimum of 3 team members.
- 3. Members of the Club are considered to be a team competing in an SSBC regional events and must be registered as a team with AISC. The team's faculty advisor must complete the team registration form.
  - 3.1. All Club members must complete a Volunteer Application and sign a Code of Conduct.
  - 3.2. All Club members must review the 2019 SSBC Rules
- 4. Membership Requirements. The responsibilities of Club members include:
  - 4.1. Learning and following the SSBC Mission Statement and 2019 Rules.
  - 4.2. Regularly attending Club meetings and participating in Club activities and events.
  - 4.3. [Insert any additional requirements such as meeting attendance, serving on a committee, participating in activities, donation of time, etc.]
- 5. Duties: Club members will play an assigned role in designing, fabricating, constructing and testing a 1:10 scale steel bridge to compete in the annual AISC Student Steel Bridge Competition.

#### Article V.

#### Officers

- 1. The officers of the Club shall be [titles of officers, such as President, Vice President, Secretary, Treasurer, and Committee Leads.] The officers will form the Executive Board.
- 2. The Executive Board shall be comprised of the elected officers of the Club and shall meet on a regularly basis to finalize agenda items, prepare reports, and collaborate on the business of the Club.
- 3. These officers shall perform the duties prescribed by this Constitution and by the parliamentary authority adopted by the Club.

#### 3.1. President:

- Call, preside over and adjourn all meetings of the club
- Oversee all club activities, events, and fundraisers
- Maintain regular contact with faculty advisor
- Be aware of financial matters pertaining to Club
- Coordinate Executive Board transition
- [Insert any additional position responsibilities.]

#### 3.2. Vice President:

- Assume the duties & responsibilities of President if s/he is unable to do so
- Preside over meetings when the President is not able to attend
- Organize the 'Adopt a School' relationship with a local fabrication shop.
- Assist the President in all club activities and take on other duties as required
- [Insert any additional position responsibilities.]

#### 3.3. Treasurer:

- Manage all fiscal matters related to the club
- Help plan and organize all club fundraisers/ sponsorship solicitations
- Liaise with the school financial office/student government with matters pertaining to funds for the club
- Maintain a financial history of the Club
- Club meetings: Report to Club officers/members on status of funds
- Maintain regular contact with faculty advisor and president regarding Club's finances
- [Insert any additional position responsibilities.]

#### 3.4. Secretary:

- Record minutes of all club meetings and make the minutes available to members
- Maintain all official club correspondence
- Maintain a membership list of all official members
- Keep team informed of any changes to the 2019 SSBS Rules

- [Insert any additional position responsibilities.]
- 3.5. Historian/Public Relations Officer:
  - Publicize all club activities
  - Attend all club activities and record events
  - Maintain any media that is shared on the clubs website, Facebook, Instagram, etc.
  - [Insert any additional position responsibilities.]
- 4. Qualifications: All officers must be enrolled students in good standing at [School name]. Good standing is determined as [Insert school's/ club requirements for being in good standing]
- 5. Election: Officers are elected for the following (academic) year by a simple majority vote of the members present during, or by the time of, the last Club meeting during the current year.
  - 5.1. Officer terms will last for one academic year.
  - 5.2. In the event of a vote tie, [Define the procedure your Club will follow in the event of a tie.]
- 6. Removal From office: Any officer not acting in accordance with the Club expectations, or does not meet or fulfill the standards or duties established for the office he/she holds may be removed from office by a majority vote by the membership.

#### Article VI.

## Faculty Advisor

- 1. A full-time [school name or chapter name] employee or faculty member shall serve as the Faculty Advisor for the Club.
- 2. The faculty advisor for the Club is

[Name of Faculty Advisor]

[Faculty Advisor Phone number]

[Faculty Advisor Email address]

- 3. Term: The Faculty Advisor shall serve a minimum term of one full (academic) year. There is no term limit.
- 4. Duties: The Faculty Advisor's duties include:
  - Verify that all students on the team are students enrolled at [School] for part of or all of the 2018-2019 academic year.
  - Submit a roster of students to AISC by March 1, 2019.
  - Promote an inclusive and positive environment for all students participating in the program where learning is the desired outcome.

- Encourage students to make design decisions and fabricate their bridge on their own as much as possible in order to maximize learning.
- Attend the Regional Event with the Club or send a substitute faculty member in their place.
- Ensure that students exhibit good sportsmanship and professional behavior at regional and national levels of the SSBC in order to give the Club the opportunity to participate in future competitions.
- Assist students in fostering relationships with industry professionals through local fabricator introductions, and if applicable, AISC seminars, networking events, and NASCC: The Steel Conference
- Club meetings: Attend Club meetings, keep Club informed about school/institutional matters, give a report during Club meetings when appropriate, respect and encourage all Club functions and assist with risk management decisions
- Maintain regular contact with AISC
- Help maintain history of the Club from year to year
- Assist Club with election concerns
- Recognize Club members for achievement and commitment
- [Insert any additional position responsibilities.]

#### Article VIII.

## Quorum and Voting

- 1. AISC encourages the Club to make decisions regarding their bridge project together as a team through group discussion. If voting needs to take place, each member is entitled to one vote. Voting by proxy shall not be permitted. Decisions determined to require a vote shall be by majority vote of members present.
- 2. A quorum shall constitute a minimum of 50% of the membership in attendance at a scheduled meeting. The process for general decision-making, including the expenditure of funds, shall be a simple majority of a quorum unless otherwise specified in this Constitution.
- 3. The Executive Board may, with a majority vote, authorize expenditures of up to \$ [insert maximum dollar amount].00 for routine operational expenses.
- 4. Changes to this Constitution require quorum and a 2/3 vote to pass.
- 5. The Faculty Advisor does not have voting rights.

#### Article IX.

#### **Amendments**

1. Amendments to these bylaws consistent with the Club constitution may be adopted at any meeting of the Club in which a quorum is present, provided that a statement setting forth the substance of such proposed action is included in the notice of the meeting.

- 2. Any active member may propose an amendment to the Club's Constitution in order to ensure that the Club is administered properly.
- 3. At the final meeting of the academic year, proposals will be read aloud and all active members will vote on the proposal.
- 4. A 2/3 majority vote of a quorum of all active members is required to approve an amendment.
- 5. [Insert any additional requirements that your school may require.]

#### Article X.

#### Club Requirements

- 1. All Club members shall act professionally and respectfully at all times. Failure to act appropriately can result in letters of reprimand, mandatory behavior management plans, and loss of invitations to future competitions for individual institutions.
- 2. Club will maintain a faculty advisor for the entire academic year.
- 3. Submit a team registration form by December 31, 2018. (Faculty Advisor)
- 4. Submit a roster of students to AISC by March 1, 2019. (Faculty Advisor)
- 5. Club will adhere to the 2019 SSBC Rules and the clarifications posted at www.aisc.org/ssbc
- 6. Club will track Club participation, funding, events, activities, and complete a brief club summary report form at the end of the 2018-2019 academic year. This information will be used by AISC to improve club resources in the future.
- 7. Clubs will follow brand and style guidelines to the best of their ability when using the SSBC name and logo in external communications, including in connection with team attire, fundraising, and social media.
- 8. Club will complete the <u>Fabricator Partnership Request Form</u> prior to reaching out to any local fabricator

#### Article XI.

## Club Finances and Fundraising

- 1. AISC will provide \$250 to each team participating in a regional competition. A check will be mailed once your faculty advisor completes the SSBC Regional Team Registration form.
- 2. Club are encouraged to request additional club funds from [School]

to contacting the fabricator. Once your solicitation request is submitted, AISC will provide the club with a plan of action for the ask, including contact information, letter templates, and more.		
This constitution is adopted by the [Name dates.]	of SSBC Club] on [insert date] for the [insert school year	
Club President	Faculty Advisor	
Name (print)	Name (print)	
Signature	Signature	

Date\_\_\_\_\_

3. In addition to AISC and School funding, the club may raise funds for Club expenses. If the club chooses to solicit a local fabricator, they must complete the <u>fabricator partnership request form</u> prior

Date\_\_\_\_\_

## Student Steel Bridge Competition Branding Guidelines

For more than 30 years, one of AISC's most educational and impactful programs for college students has been the Student Steel Bridge Competition. The Student Steel Bridge Competition has a long-established tradition of ethical behavior and professionalism. While your club is a separate entity of SSBC, we encourage you to follow the guidelines below on all external communications. Together, through consistent usage and branding, we can communicate a unified message.

## Logo

SSBC Clubs are permitted to use the 2019 Student Steel Bridge Competition Logo. Clubs may also request sub-brand lockup logo by emailing Sadie Brown at <a href="mailto:brown@aisc.org">brown@aisc.org</a>. Clubs can also create their own logo. Please keep in mind your school's requirements for club logos.

## Style Guide

When talking about the Student Steel Bridge Competition on any official material we recommend, but don't require, that you follow the approved SSBC style. Here are the basic guidelines:

- Refer to the competition as a whole on first reference as the *Student Steel Bridge Competition* and the *SSBC* thereafter.
- There are two levels of Student Steel Bridge Competition: Regional Events and the National Finals.
  - When referencing the Regional Event and not the entire competition, refer to it as Student Steel Bridge Competition- Regional Event on first reference and Regional Event thereafter.
  - When referencing the National Finals and not the entire competition, refer to it as Student Steel Bridge Competition- National Finals on first reference and National Finals thereafter
- The standard fonts for printed SSBC documents is Avenir. Avenir is available in GSuite platforms. If you do not have access to Avenir, a basic sans serif font such as Helvetica will suffice.

## Student Steel Bridge Competition Social Media

## Official SSBC Hashtags

The official SSBC hashtag is #SSBCxAISC. Be sure to follow the hashtag to see what other SSBC teams are up too! AISC will post your tagged pictures to our instagram, @AISC!

## Club Social Media

Social Media has been proven to be an efficient tool for clubs to communicate with fellow officers, publicize events, send out alerts for meetings or organizing your calendars with activities. With proper use of sites like Facebook, Twitter, Instagram, Pinterest, and YouTube, your club will organize work, communicate efficiently, build visibility and collaborate with the community. However, Social Media can also be damaging for your club if not used correctly. So, we've created some tips to ensure your success!

### Private Groups

Creating a private group (such as a Facebook group) can help you advertise club events, promote club goals, and build camaraderie among members.

## **Public Pages**

Public pages such as Facebook, Instagram, and Twitter are fantastic ways to build a presence online and recruit new members. However, if it is not managed correctly and updated regularly, it can bring a lot of damage to your club! Be sure you have the time and resources, such as a dedicated social media officer, before creating public groups.

## Suggested items that should go on a Public Page:

- Your logo
- Explanation of the SSBC mission
- Information on Club's schedule of meetings and events
- Short descriptions, images and/or videos of club activities
- Contact information for Club officers
- Information about how interested members can join your Club