Lowcountry Regional Science and Engineering Fair

Educator’s Guidebook

An affiliate of the International Science and Engineering Fair
and the Thermo Fisher Scientific Junior Innovators Challenge

Contact:
India Ballard, M.S., Director
Lowcountry Hall of Science and Math
College of Charleston
202 Calhoun Street, Room 150
Charleston, SC 29424
843.953.7847
ballardi@cofc.edu
http://lhsm.cofc.edu

Sponsored by:

Patriots Point Foundation Cold War Submarine Memorial Fund
The Lowcountry Regional Science and Engineering Fair (LRSEF) is the International Science and Engineering Fair (ISEF) and Thermo Fisher Scientific Junior Innovators Challenge affiliate for Berkeley, Charleston, Colleton, Dorchester, and Georgetown counties in South Carolina. The LRSEF is held annually in March/April with registration due about two weeks prior to the event. At the LRSEF, students compete for national, regional, and local awards, as well as the opportunity to advance to the aforementioned competitions. The College of Charleston is the title sponsor for the LRSEF.

<table>
<thead>
<tr>
<th>Contents</th>
<th>LRSEF Logistics (p.2-3)</th>
<th>LRSEF Rules (p. 4)</th>
<th>LRSEF Registration (p. 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dates</td>
<td>Eligibility</td>
<td>Registration Packets</td>
</tr>
<tr>
<td></td>
<td>Schedule of Events</td>
<td>Divisions &amp;</td>
<td>Registration Fees</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>Categories</td>
<td>Grades 5-8</td>
</tr>
<tr>
<td></td>
<td>Parking</td>
<td>Review Boards</td>
<td>Grades 9-12</td>
</tr>
<tr>
<td></td>
<td>Awards</td>
<td>Rules &amp;</td>
<td>List of Participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regulations</td>
<td></td>
</tr>
</tbody>
</table>

Mark your Calendars

- Sunday, March 05, 2023: Registrations Due
- Thursday, March 30, 2023: LRSEF Competition & Awards

Reminders for 2023

- Competition & Awards Ceremony to be held same day*
- Location: College Center, Trident Technical College, 7000 Rivers Ave., Charleston
- Lunch & Light Dinner to be provided for students & 2 chaperones per school/home school association
- Senior Division Team may have only 2 members

*Note: The competition and awards ceremony are scheduled for the same day.
**LSF Logistics**

**Dates**
Considering the public and private school Spring Breaks, and religious holidays, the 2023 LSF competition and awards ceremony will be held on Thursday, March 30, 2023 at the College Center at Trident Technical College (7000 Rivers Avenue, Charleston, SC 29423). We realize this date is not ideal for everyone; however, it was necessary to choose this date due to the new ISEF regulations.

Registration forms are due Sunday, March 05, 2023. Refer to pages 9-10 for more information.

**Schedule of Events**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-9:30</td>
<td>Check-in and set up exhibits (Student Exhibits must be set up by 9:30)</td>
</tr>
<tr>
<td>9:00-9:30</td>
<td>Category and Special Awards Judges meet in the Judges' suite at College Center.</td>
</tr>
<tr>
<td>9:30-11:30</td>
<td>Category and Special Awards Judging</td>
</tr>
<tr>
<td>11:30-1:30</td>
<td>Lunch Break for all participants*</td>
</tr>
<tr>
<td>1:30-2:00</td>
<td>Final Interview Judges meet in the Judges' suite at College Center.</td>
</tr>
<tr>
<td>2:00-4:00</td>
<td>Final Interviews to determine the Overall Winners</td>
</tr>
<tr>
<td>4:00-4:30</td>
<td>Light Dinner for participants in the Final Interview*</td>
</tr>
<tr>
<td>4:30-5:00</td>
<td>Break- Chemistry Show/SSM Presentation</td>
</tr>
<tr>
<td>5:00-6:00</td>
<td>Awards Ceremony</td>
</tr>
</tbody>
</table>

* The LRSEF will be able to provide lunch and light dinner to each participant and two chaperones per school/home school association.

**Location**

The College Center at Trident Technical College is located at 7000 Rivers Avenue, Building 920, Suite 107, Charleston, SC 29423.

**From Eastbound Interstate 26**
Take Exit 209 to Ashley Phosphate Road. Bear right from the exit ramp and take a right on Rivers Avenue. Then, take a left on Mabeline Road; this is the Trident Tech NORTH GATE Entrance. Take the first right on Center Drive. Park in the Special Events parking lot immediately to your left off of Center Drive.

**From Westbound Interstate 26**
Take Exit 211B to Aviation Avenue. Bear left from the exit ramp and take a left on Rivers Avenue. Then, take a left on Mabeline Road; this is the Trident Tech NORTH GATE Entrance. Take the first right on Center Drive. Park in the Special Events parking lot immediately to your left off of Center Drive.
**Parking**

Parking is **free**; please park your vehicle in the Special Events parking lot immediately to your left off of Center Drive. Please see the map below and note the new parking regulations for visitors at TTC.

---

**Awards**

Each student receives a signed Certificate of Participation. The following awards will be given at the LRSEF Awards Ceremony:

- **Exciting News for the Lowcountry Regional Science and Engineering Fair Participants!!!**
  - The Overall Winners in the Senior Division will each get a $2,500 Scholarship Award to come to the College of Charleston and major in a STEM discipline in the School of Sciences and Mathematics.
- A variety of national, regional, and local special awards
- First, Second, and Third Place Category Awards for each Division
- Overall First, Second, and Third Place for each Division
- Overall First Place Teacher Award for each Division
- Advancement to **Thermo Fisher Scientific Junior Innovators Challenge** for Middle School Students
- Advancement to ISEF for the 1st and 2nd Place Overall Winners in the Senior Division; note the exception that if a team wins 1st place, only the 1st place group will be sent.


**LRSEF Rules**

**Eligibility**
The LRSEF is open to public, private, and home school students in grades 5 - 12 from Berkeley, Charleston, Colleton, Dorchester, and Georgetown counties. Students are selected based on their excellence in their school/home school association science fair or by the school’s science department. **There is no limit to the number of projects a school can advance to the LRSEF.**

**Review Boards**
Projects involving human subjects (including surveys and questionnaires), non-human vertebrates, pathogenic agents, controlled substances, recombinant DNA, or human/animal tissue must be approved by either an **Internal Review Board (IRB)** or the Scientific Review Committee prior to experimentation.

Each school should have an IRB to evaluate the potential physical or psychological risk of a project involving human subjects. All human research must be reviewed and pre-approved by the IRB before experimentation.

This includes any surveys or questionnaires to be used in a project. The IRB should include:

- a science teacher,
- a school administrator,
- and one of the following: a psychologist, psychiatrist, licensed social worker, medical doctor, physician’s assistant, or a registered nurse.

The **Scientific Review Committee (SRC)** is appointed by the LRSEF director to review and pre-approve experimental procedures for projects involving non-human vertebrates, pathogenic agents (including bacteria from the environment that is potentially pathogenic), controlled substances, recombinant DNA, and human/animal tissue to make certain they comply with the ISEF rules and any pertinent laws.

**Important Information**
Senior Division students (grades 9-12) should review the ISEF rules and forms prior to experimentation and submit any necessary paperwork to the LSF director for SRC approval. **These forms must be submitted prior to the fair review board meets to ensure eligibility.** Use the ISEF Rules Wizard to identify the appropriate ISEF forms for their project.

- The Fair Director and Judge Coordinator reserve the right to remove any project or item for safety reasons or to protect the integrity of the LRSEF and its rules and regulations.
- The LRSEF Display and Safety Regulations are based on the International Science & Engineering Fair Regulations. While planning their display, Senior Division (grades 9-12) students should review all ISEF Display & Safety Regulations.
- **The Rules and Regulations, including information on Categories, Subcategories, Forms, and Display and Safety Regulations are provided in the ISEF website.**

---

Identifying Marks
Personal identifying markers such as last name and school name, including in display photographs, are not allowed on the front of the display. Students should not wear clothing with their school’s name. This rule is to eliminate potential bias on the part of the judges. Exception: The LSF will concede to school rules regarding dress.

---

ISEF Rules and Forms | [https://www.societyforscience.org/isef/international-rules/](https://www.societyforscience.org/isef/international-rules/)
If a participating school requires uniforms to be worn during school outings, uniforms will be permitted. However, any identifying logos or names should be covered. Opaque tape will be available.

**LRSEF Registration**

**Registration Packets**

Registration packets are created for students to complete and submit along with a handout to guide them through the registration process. Please use the appropriate packet for your students’ grade level.

Registration Packets contain the following:

- Registration Checklist *(details all steps of the registration process)*
- Approval Form *(to be signed by the student, teacher, and parent/guardian)*
- Research Plan *(Junior Division only)*


**Registration Fees**

Registration fees are $25 per individual project and $30 per team project. Registration fees are due with the paperwork on **Sunday, March 05, 2023** and are non-refundable. Checks should be made payable to the “College of Charleston”. Payment online is preferred – payments can be made at [https://secure.touchnet.com/C20590_ustores/web/store_main.jsp?STOREID=24](https://secure.touchnet.com/C20590_ustores/web/store_main.jsp?STOREID=24)

Please note when registering a team project, each team member will receive an automated invoice for $30. However, team members should split the cost of the fee and only send a check for his/her portion of the fee. Each team member should **not** pay the entire fee of $30. A limited number of fee waivers are available based on need. Please contact the fair director for a fee waiver.

**Registration for Students in Grades 5-8 (Junior Divisions)**

Students in the Junior Divisions should complete the online registration and submit a hard copy of the Approval Form and Research Plan along with the registration fee by or on **Sunday, March 05, 2023**.

For team projects, **each student should submit their own online registration and Approval Form.** Research Plans may be submitted jointly. During the online registration, select “Team Project” under the Category heading and then the preferred discipline. To avoid confusion, each team member should enter the same project title and description.

**Registration Students in Grades 9-12 (Senior Division)**

Students in the Senior Division should complete the online registration, and submit a hard copy of the Approval Form, ISEF Forms 1, 1A, and 1B, and any other appropriate ISEF forms along with the registration fee by or on **Sunday, March 05, 2023**.

The link to the online registration is [https://blogs.cofc.edu/lowcountryhall/2022/09/20/registration-is-open-for-the-2023-lowcountry-science-fair/](https://blogs.cofc.edu/lowcountryhall/2022/09/20/registration-is-open-for-the-2023-lowcountry-science-fair/)
List of Participants
A List of Participants must be submitted for each participating school or home school association by or on Sunday, March 05, 2023. This is to ensure that all participants are correctly registered.

List of Participants (Word or PDF) |
https://lhsm.cofc.edu/documents/LSFdocuments/2023/_teacher-list-participants.docx.pdf
Good Luck!