

# Guidelines for the 2009 Northern New Jersey Junior Science and Humanities Symposium

March 26-27, 2009, Rutgers University Busch Campus

Congratulations to you and your students on their selection for the Northern New Jersey JSHS at Rutgers. We are very much looking forward to hearing more about the students' research.

Please arrive no later than 10:00 AM on Thursday, March 26<sup>th</sup> to Rutgers' Busch Campus Center. Directions to the Busch Campus Center are available at <http://maps.rutgers.edu/building.aspx?id=44/>. (Please note that streets are not very well marked on the campus itself.) A full itinerary for the event will follow.

Students will be provided lunch and dinner on March 26<sup>th</sup>, and a small breakfast and lunch on March 27<sup>th</sup>. Following lunch on March 26<sup>th</sup>, all oral and poster presenters will leave for off-campus tours at local engineering and science corporations. Chaperones have been contacted individually about students' preferences. All observers will attend on-campus tours and hear from a guest speaker. That evening, students will take buses (provided by Rutgers) to the Crowne Plaza Somerset-Bridgewater hotel, where students will have dinner, hear from a speaker, and engage in science and engineering contests and activities. On Tuesday morning, we will return to the Busch Campus Center for breakfast, oral and poster presentation sessions, and lunch. The day will conclude no later than 6:00 PM following an awards ceremony.

**REGISTRATION (3/26/09 from 9:15AM-10:00AM):** Please plan to arrive at the Busch Campus Center between 9:15 AM and 10:00 AM on Thursday, March 26<sup>th</sup>, 2009. Please do not arrive before 9:15 AM.

**PARKING at BUSCH CAMPUS CENTER:** If you need to park a car at the Busch Campus Center, please inform us during the registration and we will give you a permit. Cars should be parked in Lot 51, directly in front of the Busch Campus Center.

**LUGGAGE:** Bring your luggage with you to the Busch Campus Center. Provisions have been made to secure and store luggage. Anything you need during the day should be kept with you in a backpack or similar-type carrier. NOTE: We strongly recommend that you tag your own luggage to avoid loss.

**MEALS:** Meals will be provided for all students, teachers, and adult chaperones on Monday (lunch at the Busch Campus Center and evening banquet at the Crowne Plaza) and Tuesday (breakfast and lunch at the Busch Campus Center).

**BUSES:** Buses provided by Rutgers will take students and chaperones from the Busch Campus Center to the hotel on Thursday evening. Buses provided by Rutgers will take students and chaperones from the hotel to the Busch Campus Center on Friday morning.

**HOTEL:** We will be staying at the Crowne Plaza Somerset-Bridgewater. The hotel is located at 110 Davidson Ave. in Somerset, NJ 08873. The hotel front desk can be reached at 1-732-560-0500. Please note that this is a change from our initial correspondence.

**ORAL PRESENTERS:** Students selected as oral presenters will have 12 minutes to present and 6 minutes to answer questions following their presentation. The top three presenters will be awarded scholarships ranging from \$1,000 - \$2,000 and will have the opportunity to present at Nationals. The top four presenters will also be awarded an expenses-paid trip to the JSHS Nationals in Colorado Springs, Colorado from April 29<sup>th</sup> – May 3<sup>rd</sup>, 2009. Please see the guidelines for oral presenters on the following pages.

**POSTER PRESENTERS:** Students selected as poster presenters shall prepare posters detailing their work. They will be asked to present their work, in brief, to judges as they walk around the poster session. The top five poster presenters will receive certificates and small gifts. The top poster presenter will be the recipient of a fifth expenses paid trip to the JSHS Nationals. Please see the guidelines for poster presentations on the following pages.

**CONTACTING US:**

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## ORAL (PLENARY) Presentation Guidelines

**Please note:** We anticipate that students will use Powerpoint or equivalent for their presentation. Please contact us if you would prefer a different means of delivery.

### 1. **Timing**

2.

- a. The presentation may not exceed 12 minutes and will be followed by a 6 minute question-and-answer period. At 10 minutes and at 11 minutes, the presenter will be notified of the remaining time via a hand signal from the session moderator. 12 minutes is a hard cutoff time; if the student has not finished presenting at the 12 minute mark, she will be given 15 seconds to complete her thought.
- b. The session moderator will first field questions from the judges, followed by questions from students in the audience. If time permits, questions will be fielded from all others in attendance.
- c. Before answering each question, the presenter must repeat or paraphrase the question that has been asked so that everyone in the audience can follow the response.

### 2. **Suggestions for the Oral Presentation**

- a. The overall outline for your presentation should be:
  - describe the problem/question you are investigating and why it is important (this may include briefly explaining related work by other scientists)
  - briefly discuss how you went about solving the problem (your procedure) and why you chose these steps
  - summarize and discuss what you found (your results)
  - critically discuss the conclusions you've made (this may include suggestions for future work)

While the presentation format itself is up to you, a presentation that does not address these points will likely be incomplete.

- b. Clarity in your presentation is critically important. If the audience and judges have difficulty following your presentation, you will not receive a good score. You should assume that the audience and judges have a solid understanding of major concepts in science/engineering/mathematics, but that they are not experts in the particular field of your research. If you are using terminology that is specific to your research field, please remember to define these words. For instance, you can assume that your audience knows the function of mRNA or what spectroscopy is, but if you are discussing a specialized detection process or specific gene, you should explain/define it. Of course, being clear and comprehensible does not mean that you must reduce your scientific rigor; just use the minimum amount of terminology necessary to explain what you did.

- c. Graphs, tables and other illustrations may help explain your results. Remember to name the variables on each axis of a graph, and state the significance of the position and shape of the graph. Give your audience enough time to understand what you are trying to convey. Don't forget to explain the visuals.
- d. Deliver your presentation at a comfortable pace. You will do both yourself and the audience a great favor by thoroughly practicing your presentation and adhering to the time limit. It helps to practice your presentation before a non-specialized audience. Practice will help perfect the presentation and the timing and help you enjoy your presentation experience. Aim for a 10 minute long presentation, leaving yourself 2 minutes of "breathing room" during the presentation itself. Acknowledgments are presented at the end of an oral presentation.
- e. No written handouts are permitted.
- f. Any research apparatus may be demonstrated only if it is integral to the presentation and only if the apparatus is hand-held.
- g. Be tasteful and cognizant of the effect your Powerpoint slide layout and design choices will have on the audience. Be professional.

### 3. **A/V Equipment**

- a. Available audio-visual equipment includes a laptop computer running Windows XP, a projector, a lectern, and a laser pointer. Please notify us well in advance if you will need sound or DVD playback from the computer. If a student would prefer to use her own laptop, that's perfectly fine.
- b. OpenOffice 3.0, MS Powerpoint 2007, and a PDF reader will be installed on the presentation computer.
- c. Please bring at least two copies of your presentation with you, on either CDs or a USB Key/Thumb Drive. 24 hours in advance of the Symposium, please also email a backup copy of your presentation to **nnj.jshs@gmail.com**.
- d. Your first slide should include the title of your work, your name, and your school.
- e. Use good judgment in determining the number of visuals and balance their contents. Although you do not want to quickly flash multiple visuals, you should not spend too much time on a single visual either.

## POSTER Presentation Guidelines

During the poster sessions, all poster presenters will be expected to remain at their posters. Judges (and all other attendees) will walk around. When the judges arrive, you will be expected to give a 4 minute overview of your research, which will be followed by a few minutes of questions. Judging will include the student's knowledge of the research topic, ability to explain their work, and demonstrated understanding of the methods chosen.

### Preparation of the Poster

1. **General** - All posters must be prepared as follows:
  - a. Posters should not be larger than 30 in. (76 cm) deep, 36 in. wide, and 48 in. high.
  - b. Headings [abstract, introduction, hypothesis(es), method, results, discussion and conclusion(s)] must stand out from the body of text.
  - c. Keep the amount of text to a minimum. As a general guideline, consider using 24-pt font for all text on the poster, 48-pt font for headings, and 72-pt font for your title and name.
  - d. Photographs of human subjects are not permitted unless accompanied by a signed-consent form. The student researcher should have the subject sign a letter stating that they (the subject) are freely giving their permission for their photograph to be used in the Rutgers Junior Science & Humanities Symposium. This permission form must be placed as part of the research poster display during the Symposium.
  
2. **Poster Content** - Included in the poster should be the following:
  - a. **Title**
  - b. **Student's Name and School**
  - c. **Abstract:** Briefly summarize your research: the purpose, method, findings, and major conclusions.
  - d. **Introduction:** Provide background relating to your study topic. Provide the motivation for your study and present a clear description of the research project.
  - e. **Methods**
  - f. **Results:** Data is often included in chart or graph form. When applicable, some measurement of variability/error should accompany the mean or other summary statistics. Statistical analysis of the results should be presented by providing the name of the statistical test used, the resulting statistical value, and the probability of obtaining that value by chance. Remember, the probabilities associated with various statistical tests are found in tables at the back of introductory statistics books.
  - g. **Conclusions:** Briefly state the most important facts that were concluded from your research.
  - h. **Acknowledgments**