2018 STEP STATEWIDE STUDENT CONFERENCE
STUDENT RESEARCH POSTER PRESENTATION GUIDELINES
Saturday, March 24, 2018
Albany Marriott- Albany, New York

The following criteria have been developed to guide the planning and development of student research poster presentations. **Please note, that there will only be 90 poster abstracts accepted.** Due to an increase in the number of students and institutions desiring to participate in the poster presentation competition, **a maximum of 3 posters from each institution will be accepted.** Poster abstracts will be **accepted on a first come first serve basis** until all the spaces have been filled.

Students are strongly encouraged to conduct actual research before submitting a project for this competition. All abstracts AND bibliographies must be submitted by 12:00pm Tuesday, January 23, 2018 via the ONLINE SUBMISSION PROCESS.

Institutions should not submit more than 3 abstracts for the poster competition. **Institutions that <u>exceed the submission entries limit of THREE (3) will have ALL of its posters/abstracts eliminated</u> from the competition.**

RESEARCH POSTER COMPETITION GUIDELINES

POSTER REQUIREMENTS
- A **poster display is mandatory** for the Student Research Poster Competition.
- 36 x 48 inches (Tri-fold Display Board)- Posters that exceed these measurements will have **FIVE (5) points deducted** from the final score.
- The display board must be freestanding.
- Each student is allowed a maximum of **ONE (1) POSTER,** and is responsible for **any special equipment** (*i.e. display boards, extension cords, laptops, iPads, LCD Projector, Internet access, etc.*).
- The poster should include the abstract, poster division, category of presentation and bibliography as outlined below.

1. **ABSTRACT INFORMATION**
   - Each abstract should **not exceed 150 words in length.**
   - Abstracts that are more than 150 words in length *<u>will not be accepted</u>* for the competition.
   - Include presenter's name, co-presenters, project title, institution name, grade in school, Poster Abstract Number (1, 2, or 3), poster division (**see section 2A**), poster category (**see section 2B**), judging category (**see section 2C**), faculty sponsor, and abstract word count. *<u>A maximum of 4 presenters per poster</u>* (*i.e. primary presenter and three co-presenters*).
   - Include a **problem statement, methods, materials, results and conclusion.**

   The Basic Components of an Abstract
   1. **Problem Statement:**
      a. Why is this a relevant research project?
      b. What practical, theoretical or scientific gap is your research filling?
      c. What is the problem or questions to be addressed in the project?
   2. **Methods/Procedures:**
      a. What steps did you take to complete this research project?
      b. What did you do to analyze your data?
   3. **Results/Findings:**
      a. As a result of completing the above procedures, what did you learn, invent or create?
   4. **Conclusion/Implications:**
      a. What were your research findings? What are the larger implications of your findings?

2018 STEP STATEWIDE STUDENT CONFERENCE
STUDENT RESEARCH POSTER PRESENTATION GUIDELINES
Saturday, March 24, 2018
Albany Marriott- Albany, New York

Please visit www.stepforleaders.org for examples of abstracts for posters presented during the 2017 STEP Statewide Student Conference Research Poster Competition Conference Booklet.

2A. POSTER DIVISION
Posters will be judged in **THREE DIVISIONS.** Please selection **ONE (1) of the three divisions**:**
- **Middle Division**- Students in grades 7 and 8.
- **Junior Division**- Students in grades 9 and 10.
- **Senior Division**- Students in grades 11 and 12.

Divisions *may be combined* based on the number of poster entries.

** If multiple grade levels present a project, the division will be assigned based on the highest-grade level.

2B. CATEGORY OF PRESENTATION
Students must **CHOOSE ONE (1) of the following FIVE categories** for presentation entry. **Categories *may be combined*** based on the number of entries.

1. **Biological/Life Sciences**
   Projects that investigate some aspect of life- Biology, Botany, Ecology, the Environment, Molecular and Cellular Biosciences, etc. [***Example:*** *Genetics and Heredity or The Effect of Sound on Plants]*

2. **Human Services**
   Projects that study human conditions pertaining to disease, families, children, safety, wellness, aging, human service agencies and the impact on the community, etc. [***Example:*** *Health Department's Student about Bacterial Meningitis and Teenagers]*

3. **Physical Sciences**
   Projects that research modern findings in Astronomy, Chemistry, Earth Science, Material Sciences, Physics, the history and policy of science, etc. [***Example:*** *Observation of Freezing Rates of Water on Different Starting Temperatures]*

4. **Social Sciences**
   Projects that explore important subject matter in Anthropology, Sociology, Psychology, Political Science, History, Geography, etc. [***Example:*** *Violence in Middle and High Schools of The Effects of the Media and Pop Culture on Students]*

5. **Technology**
   Projects that analyze technological advances such as robotics, fiber optics, computer science and programs, computer games, engineering, architect, engineering technology, Computer Aided Design (CAD), graphics, etc. [***Example:*** *Virtual Homework Lockers for Students and Teachers]*

2C. JUDGING CRITERIA
There will be a team of judges for each category. Criteria for judging will include, but may not be limited to the items listed below.

Overall Project
- Statement of Purpose
- Documentation/Impact
- Significance/Impact
- Creativity or Initiative
- Methodology

Exhibit of Display (*A Poster is **mandatory** for the Student Research Poster Competition.)*
- Poster should be 36 x 48 inches (Tri-fold Display Board)- Posters that exceed these measurements will have **FIVE (5) points deducted from the final score.**

- Visual appearance of project display

Presenter's Oral Discussion of the Project
- 2 – 3 minute overview of project
- 2 – 3 minute question and answer session
- Presenters should **practice his/her presentation** to remain in the time limit.

Rating Scale
- Judges will use **THE ENCLOSED RUBRIC** to rate students' presentations in the following areas:
  - Abstract
  - Research Design
  - Visual and Verbal Presentations
  - Conclusion
  - Bibliography/References

Failure to include a list of references **will result in FIVE (5) point deduction from the project.

3. **BIBLIOGRAPHY INFORMATION**
   - A list of references/bibliography should be **ONE (1) page, double-spaced, have one-inch margins, 12-point Times New Roman font displayed on the poster.**
   - A list of references/bibliography should be submitted for each poster abstract entered in the Student Research Poster Presentation Competition.
   - **References/bibliographies _must be submitted online_ via the ONLINE SUBMISSION process.**
   - References/bibliographies **faxed, emailed or mailed** to Syracuse University's STEP Office _will not be accepted for the competition._

2018 STEP STATEWIDE STUDENT CONFERENCE
STUDENT RESEARCH POSTER PRESENTATION GUIDELINES
Saturday, March 24, 2018
Albany Marriott- Albany, New York

WHAT IS AN ABSTRACT?

An **ABSTRACT** is a brief summary of your project. It summarizes very clearly the main points of your experiment. **Abstracts should include problem statement, methods, materials, results and conclusions.**

The Basic Components of an Abstract:
1. **Problem Statement**
   a. Why is this a relevant research project?
   b. What practical, theoretical, or scientific gap is your research filling?
   c. What is the problem or question to be addressed in the project?
2. **Methods/Procedures:**
   a. What steps did you take to complete this research project?
   b. What did you do to analyze your data?
3. **Results/Findings:**
   a. As a result of completing the above procedures, what did you learn, invent or create?
4. **Conclusion/Implications:**
   a. What were your research findings? What are the larger implications of your findings?

SAMPLE ABSTRACT

Up and Down: Seasonal Temperature versus Sun Ray Angle

The **purpose of this project** was to find out whether the angle of the Sun's rays at noon affects seasonal temperatures. The experiments involved measuring the air temperature and the angle of the Sun's rays at noon during different seasons. This was done by recording air temperature and measuring the angle of shadows at noon on the first day of the month from October through April.

The **measurements confirmed my hypothesis** that as the angle of the Sun's rays decreases during the year, the outdoor temperature increases. These **findings** led me to believe that seasonal temperatures are the result of the difference in the angle of the Sun's rays. As the ray angle decreases, sunlight is more concentrated on an area, resulting in a higher temperature.

I discovered that during seasons with high temperatures, the angle of the Sun's rays is lower than during seasons with low temperatures.

Please visit www.stepforleaders.org for examples of abstracts for posters presented during the 2017 STEP Statewide Student Conference Research Poster Competition Conference Booklet.

WHAT IS A BIBLIOGRAPHY?

A **BIBLIOGRAPHY** is a reference list that identifies books, articles, peer-reviewed journals, etc. that are mentioned, referenced or used in a text.

All references should be in APA style, please see tutorials below to help create your bibliography.

http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx

https://owl.english.purdue.edu/owl/resource/560/01/

2018 STEP STATEWIDE STUDENT CONFERENCE
STUDENT RESEARCH POSTER PRESENTATION GUIDELINES
Saturday, March 24, 2018
Albany Marriott- Albany, New York

POSTER COMPETITION REGISTRATION, ABSTRACT AND BIBLIOGRAPHY SUBMISION GUIDELINES:

ONLINE REGISTRATION, ABSTRACT AND BIBLIOGRAPHY SUBMISSION PROCESS

- **Abstracts AND bibliographies must be submitted by 12:00pm Tuesday, January 23, 2018.**
- **Abstracts AND bibliographies faxed, emailed or mailed** to Syracuse University's STEP Office *will not be accepted* for the student research poster competition.
- **Project Administrators should complete the ONLINE SUBMISSOIN PROCESS.** Project Administrators **will be required to submit their name** when submitting each poster project**.** *Students, their parents, faculty mentors or teachers SHOULD NOT complete the online submission process.*
- **The online submission site will remain opened to participants 24 hours a day 7days a week until the 12:00pm January 23, 2018 deadline.**

- **To complete the REGISTRATION PROCESS and to submit your POSTER ABSTRACT AND BIBLIOGRAPHY, please copy or paste into your browser the link below and follow the instructions on the website:** 2018 Student Research Poster Presentation Registration Form

Please ensure that the information is **entered accurately** *(spelling, capitalization, punctuation, etc.).* This is the information that will be used to compile the conference booklet and competition. Errors in submission will likely become errors in the publication and the competition.

For additional information about the Poster Competition, please contact one of the Research Poster Competition Co-chairs.

2018 STEP STATEWIDE STUDENT CONFERENCE RESEARCH POSTER COMPETITION SUB-COMMITTEE CO-CHAIRS:

Diandra Jugmohan	Hostos Community College	djugmohan@hostos.cuny.edu	(718) 518-6773
Briseida Cortez	Hostos Community College	bcortez@hostos.cuny.edu	(718) 518-6774

STEP Student Research Poster Presentation Rubric

CATEGORY	4= Excellent	3= Good	2= Satisfactory	1= Needs Improvement
ABSTRACT GUIDELINES				
Format	Abstracts follow all formatting rules: 1 page, double-spaced, one-inch margins. Font size 12 in Times New Roman; Does not exceed 150 words; Includes: Presenters name, Grade in School, Institution Name, Abstract Number & Project Title	One or two elements of formatting rules (see left) are incorrect	More than one or two elements of formatting rules (see left) are incorrect	The student did not follow several of the formatting rules.
CONTENT				
Introduction (What is the Objective and Scope of the Investigation?)	Describes the problem and why this work was needed; Makes connections between the problem, the context and the purpose of the investigation.	Describes problem and why this work was needed. Makes connections between the problem, the context and the purpose of the investigation.	Describes the problem but makes only implicit or superficial connections between the problem, the context and the purpose of the investigation.	Does not adequately describe the problem or why the work was needed; Does not make connections between the problem, the context and the purpose of the investigation.
Methods (Summary of what the student did)	Describes the method of research, study or analysis applied to the problem. Specific and concise.	Describes the method of research, study or analysis applied to the problem but lacks one or two relevant specifics or is wordy.	Describes the method of research, study or analysis applied to the problem but lacks more than two relevant specifics or is overly wordy.	Does not adequately describe the method of research, study or analysis applied to the problem.
Results (What were the principle findings?)	Summarizes the major results of the project. Specific and concise.	Summarizes the major results of the project but lacks one or two specifics or is wordy.	Summarizes major results of the project but lacks more than two relevant specifics or is overly wordy.	Dos not adequately report the major results of the project.
Discussion (What are the principle conclusions of the study?)	Provides an interpretation and relates results back to the problem; States the relevance, implications or significance of the results to the broader context of the topic. Makes recommendations or states implications for future work.	Provides an interpretation and relates results back to the problem and to a broader context, but these sections may lack specifics or be overly wordy. Makes recommendations or states implications for future work.	Provides superficial or tangential interpretation of results. Attempts to relate results back to the problem and context but connections are superficial. May not make recommendations for future work.	Does not provide adequate interpretation of results and does not relate results back to the context or original problem. Does not make recommendations for future work.

CATEGORY	4= Excellent	3= Good	2= Satisfactory	1= Needs Improvement
POSTER GUIDELINES				
CONTENT				
Introduction & Hypothesis	Background information was relevant and summarized well. Clear connections to previous literature and broader issues. Had a goal or logical hypothesis that showed clear relevance. Broad impact beyond project clearly stated.	A logical hypothesis or goal was presented. Background information was relevant but connections were not clear. Goal of project or a logical hypothesis was stated clearly; showed relevance beyond project.	A questionable hypothesis or project goal was presented. Background information was relevant, but connections were not made.	The hypothesis or goal was inappropriate or not stated. Little or no background information was included or connected.
Methods & Experimental Logic	Excellent choice of experimental methods to address hypothesis or goal of project.	Good choice of experimental methods to address hypothesis or goal of project.	Method not appropriate to address hypothesis or goal of project.	Methods section insufficient or missing.
Procedures	Procedures were used correctly; Clear discussion and inclusion of controls or comparative groups.	Procedures were used correctly; Adequate discussion of controls or comparative groups; lacks some controls or comparative groups.	Procedures were not always followed consistently; Controls or comparative groups not adequately described; Some controls or comparative groups missing.	Procedures (if applicable) were not used correctly; Serious lack of controls or discussion of controls.
Results	Substantial amounts of high quality data presented; Sufficient to address hypothesis. Presentation of data was clear, thorough and logical. Addresses potential problems and alternative approaches.	Substantial amounts of good data were presented; Sufficient to address the hypothesis or goal of project. Presentation of data was clear and logical.	Adequate amounts of reasonably good data were presented to address hypothesis or project goals. Presentation of data was not entirely clear.	Some data were lacking; Not fully sufficient to address hypothesis or project goal. Presentation of data was either not included or very unclear & difficult to comprehend.
Discussion & Conclusions	Reasonable conclusions were given and strongly supported with evidence. Conclusion was connected to the project hypothesis and relevance in a wider context was discussed.	Reasonable conclusions were given and supported with evidence. Conclusion was connected to hypothesis but relevance was not discussed.	Reasonable conclusions were given. Conclusions were not compared to the hypothesis or project goal and their relevance was not discussed.	Loose or unsupported conclusions were given. Little or no connection to hypothesis or goal was apparent.

CATEGORY	4= Excellent	3= Good	2= Satisfactory	1= Needs Improvement
VISUAL PRESENTATION				
Organization	All expected components are present, clearly laid out and easy to follow in the absence of the presenter.	All components are present, but layout is crowded or confusing to follow in absence of the presenter.	Most expected components are present but layout is confusing to follow in the absence of the presenter.	Some of the expected components are present but poorly laid out and confusing to follow.
Background and Graphics	Text is clear and readable at a distance of three feet. Background is unobtrusive. Figures and tables are appropriate and labeled correctly. Photos, tables and graphs improve understanding and enhance visual appeal.	Text is relatively clear and most is readable from a distance of three feet. Background is unobtrusive. Most figures and tables are appropriate and labeled correctly. Photos, tables and graphs improve understanding.	Text is relatively clear but font may be distracting or too small to read at 3 feet. Background may be distracting. Figures and tables not always related to text, are not appropriate or are poorly labeled. Photos, tables and graphs limited and do not improve understanding.	Text is hard to read due to font size or color. Background may be distracting. Figures and tables are poorly done and do not relate to the text, are not appropriate or are poorly labeled. Visual aids are limited or absent and do not improve understanding.

STEP Student Research Poster Presentation Rubric

CATEGORY	4= Excellent	3= Good	2= Satisfactory	1= Needs Improvement
ORAL PRESENTATION GUIDELINES				
NON-VERBAL SKILLS				
Eye Contact	Holds attention of audience with the use of direct eye contact, seldom looks at notes.	Consistent use of direct eye contact with audience, but still returns to notes.	Minimal eye contact with audience, while reading mostly from the notes.	No eye contact with audience, as entire report is read from notes.
Body Language	Movements seem fluid and help the audience visualize.	Movements or gestures enhance articulation.	Very little movement or descriptive gestures.	No movement or descriptive gestures.
Poise	Student displays relaxed, self-confident nature, with no mistakes.	Makes minor mistakes, but quickly recovers from them; Displays little or no tension.	Displays mild tension; Has trouble recovering from mistakes.	Tension and nervousness is obvious; Has trouble recovering from mistakes.
VERBAL SKILLS				
Enthusiasm	Demonstrates a strong, positive feeling about the topic during the entire presentation.	Occasionally shows positive feelings about the topic.	Shows some negativity toward the topic presented.	Shows absolutely no interest in the topic presented.
Elocution	Student uses a clear voice and correct, precise pronunciation of terms. All audience members can hear the presentation.	Student's voice is clear and pronounces most words correctly. Most of the audience can hear the presentation.	Student's voice is low; Incorrectly pronounces terms. Audience members have difficulty hearing presentation.	Student mumbles, incorrect pronunciation, speaks too quietly for most of the audience to hear the presentation.
CONTENT				
Subject Knowledge	Student demonstrates full knowledge; Answers questions with explanations and elaboration.	Student is at ease with expected questions, does not elaborate on answers.	Student is uncomfortable with information; Able to answer only rudimentary questions.	Student does not have grasp of information; Cannot answer questions about subject.
Organization	Student presents information in logical, interesting sequence, which follows the abstract. Helps audience understand relationships among ideas by using organization aids (announcing topics, transitions, summarizing).	Student presents information in logical sequence, which follows the abstract. Audience has no difficulty understanding relationships among the ideas. The ideas in the message can be outlined easily.	Organization is incoherent. Audience has difficulty following; Student jumps around and does not follow the abstract. Audience must make assumptions about relationships among ideas.	Audience cannot understand the presentation because there is no clear sequence of information. The message is so disorganized the audience cannot understand most of the message.
Awareness of Audience	Significantly increases audience understanding and knowledge of topic; Effectively convinces an audience to recognize the validity of a point of view.	Raises audience understanding and awareness of most points; Clear point of view, development or support is inconclusive or incomplete.	Raises audience understanding and knowledge of some points. Point of view may be clear, but lacks development or support.	Fails to increase audience understanding of knowledge of topic; Fails to effectively convince the audience.

STEP Student Research Poster Presentation Rubric

CATEGORY	4= Excellent	3= Good	2= Satisfactory	1= Needs Improvement
GENERAL GUIDELINES APPLYING TO ENTIRE SUBMISSION				
Clarity, Spelling and Grammar	All elements of the submission are well organized. Contains no errors in spelling or grammar. Defines all acronyms at their first use.	A few elements of the submission are somewhat disorganized. Contains one or two errors in spelling or grammar. Does not define one or two acronyms at first use.	The submission lacks general organization. Contains more than two errors in spelling or grammar. Does not define more than two acronyms at their first use.	The submission is completely unclear; There are missing sections, several points are not clearly described. Contains more than two errors in spelling or grammar. Does not define more than two acronyms at their first use.
CONTENT				
Authorship	The student is primarily responsible for the work presented.	Student is mostly responsible for the work but outside assistance is apparent.	Student is only partially responsible for the work presented.	The student is largely not responsible for the work presented.
Accuracy	All content throughout the presentation is accurate. There are no factual errors.	Most of the content is accurate but there is one piece of information that seems inaccurate.	The content is generally accurate but one piece of information is clearly inaccurate.	Content confusing or contains more than one factual error.
Comprehensiveness	Project includes all material needed to give a good understanding of the topic. Presentation corresponds to academic area selected.	Project is lacking one or two key elements. Presentation corresponds to academic area selected.	Project is missing more than two key elements.	Project is lacking several key elements and has inaccuracies.
Coherence	All content is carefully chosen to develop the student's thesis. There is no extraneous information.	Content is carefully chosen to develop the student's thesis. There may be a few extraneous points.	Some content is not consistent with the student's thesis. There is a moderate amount of extraneous information.	Most content is inconsistent with the student's thesis and is difficult to follow because there is so much extraneous information.
References/ Bibliography	Information is supported by authentic print resources; All resources are cited correctly, using a consistent format.	One or two references are missing or reference formats are inconsistent.	More than two references are missing or information is cited using the incorrect format.	Very few (or no) references are provided to support the information presented.
Originality and Creativity	Excellent original thinking or creative innovation of technique. Very original presentation of material; Captures audience's attention.	Good original thinking and creativity; Good variety and blending of materials and media.	Minimal original thinking or creativity. Little or no variation; Material presented with little originality or interpretation.	No original thinking or creativity. Repetitive with little or no variety; Insufficient use of materials or media.

Page 5 of 5