

**“Virtual” Summer Undergraduate Research Symposium 2020**  
**West Virginia University**  
**Judging Rubric for Poster Presentation of STEM Research**

*\*adapted from the rubric developed by the American Society for Microbiology and the Committee for the Annual Biomedical Research Conference for Minority Students (ABRCMS).*

Score	5 (Excellent)	4 (Very Good)	3 (Good)	2 (Fair)	1 (Poor)
<b>Hypothesis/ Goals and Background</b>	<ul style="list-style-type: none"> <li>• <b>Background information</b> was relevant and summarized well. Connections to previous literature and broader issues were clear.</li> <li>• Project had a <b>goal or a logical hypothesis</b> that was stated clearly and concisely; showed clear relevance.</li> <li>• <b>Broader impacts</b> beyond project clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Background information was relevant, but connections were not clear.</li> <li>• A project goal or a logical hypothesis was presented and was reasonably clear and concise.</li> <li>• Broader impacts beyond project were present.</li> </ul>	<ul style="list-style-type: none"> <li>• Background information was relevant, but connections were not made.</li> <li>• Questionable project goal or hypothesis was presented.</li> <li>• Broader impacts beyond project were unclear.</li> </ul>	<ul style="list-style-type: none"> <li>• Little background information was included or connected.</li> <li>• Questionable hypothesis was presented and was not well supported or the goal of the project was unclear.</li> <li>• Broader impacts beyond project were absent.</li> </ul>	<ul style="list-style-type: none"> <li>• Background information was absent.</li> <li>• Hypothesis or goal was inappropriate or not stated.</li> <li>• Broader impacts beyond project were absent.</li> </ul>
<b>Experimental Logic</b>	<ul style="list-style-type: none"> <li>• Excellent choice of <b>experimental methods</b> to address hypothesis or project goals.</li> <li>• Excellent <b>original thinking or innovation of technique</b>.</li> <li>• Clear discussion of <b>controls or comparative groups</b>; all appropriate controls or comparative groups were included.</li> </ul>	<ul style="list-style-type: none"> <li>• Very good choice of experimental methods to address hypothesis or project goals.</li> <li>• Very good original thinking.</li> <li>• Clear discussion of controls or comparative groups; most controls or comparative groups were included.</li> </ul>	<ul style="list-style-type: none"> <li>• Good choice of experimental methods to address hypothesis or project goals.</li> <li>• Good original thinking.</li> <li>• Adequate discussion of controls or comparative groups; some significant controls or comparative groups were lacking.</li> </ul>	<ul style="list-style-type: none"> <li>• Experimental methods not appropriate to address hypothesis or project goals.</li> <li>• No original thinking.</li> <li>• Controls or comparative groups not adequately described; some controls or comparative groups missing.</li> </ul>	<ul style="list-style-type: none"> <li>• Experimental methods section missing.</li> <li>• No original thinking.</li> <li>• Serious lack of controls or discussion of controls.</li> </ul>
<b>Results</b>	<ul style="list-style-type: none"> <li>• Substantial amounts of high quality <b>data</b> were presented sufficient to address hypothesis or project goals.</li> <li>• <b>Presentation of data</b> was clear, thorough, and logical.</li> </ul>	<ul style="list-style-type: none"> <li>• Substantial amounts of good data were presented sufficient to address hypothesis or project goals.</li> <li>• Presentation of data was clear and logical.</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate amounts of reasonably good data were presented to address hypothesis or project goals.</li> <li>• Presentation of data was not entirely clear.</li> </ul>	<ul style="list-style-type: none"> <li>• Some data were lacking, or not fully sufficient to address hypothesis or project goals.</li> <li>• Presentation of data was included, but unclear or difficult to comprehend.</li> </ul>	<ul style="list-style-type: none"> <li>• Results are not yet available or reproducible.</li> <li>• Presentation of data was missing.</li> </ul>
<b>Conclusions and Future Work</b>	<ul style="list-style-type: none"> <li>• Reasonable <b>conclusions</b> were given and were strongly supported with evidence.</li> <li>• <b>Conclusions were connected</b> to project goals or hypothesis and their relevance in a wider context was discussed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable conclusions were given and were supported with evidence.</li> <li>• Conclusions were connected to project goals or hypothesis but their relevance was not discussed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reasonable conclusions were given.</li> <li>• Conclusions were not compared to project goals or hypothesis and their relevance was not discussed.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusions were given.</li> <li>• Little connection of conclusions to project goals or hypothesis was apparent.</li> </ul>	<ul style="list-style-type: none"> <li>• Conclusions were missing.</li> <li>• Conclusions were not connected to the project goals or hypothesis.</li> </ul>

Score	5 (Excellent)	4 (Very Good)	3 (Good)	2 (Fair)	1 (Poor)
<b>Poster Board</b>	<ul style="list-style-type: none"> <li>All expected <b>components</b> are present, clearly laid out, and easy to follow in absence of presenter.</li> <li><b>Text</b> is concise, free of spelling or typographical errors; background is unobtrusive.</li> <li><b>Figures and tables</b> are appropriate and labeled correctly.</li> <li>Photographs/tables/graphs <b>improve understanding</b> and <b>enhance visual appeal</b>.</li> </ul>	<ul style="list-style-type: none"> <li>All components are present, but layout is crowded or confusing to follow in absence of presenter.</li> <li>Text is relatively clear, mostly free of spelling and typographical errors; background is unobtrusive.</li> <li>Most figures and tables are appropriate and labeled correctly.</li> <li>Photographs/tables/graphs improve understanding.</li> </ul>	<ul style="list-style-type: none"> <li>Most expected components are present, but layout is confusing to follow in absence of presenter.</li> <li>Text is relatively clear, but some spelling and typographical errors; background may be distracting.</li> <li>Figures and tables not always related to text, or are not appropriate, and/or are poorly labeled.</li> <li>Photographs/tables/graphs limited and do not improve understanding.</li> </ul>	<ul style="list-style-type: none"> <li>Some expected components are present, but layout is untidy and confusing to follow in absence of presenter.</li> <li>Text is hard to read due to font size or color, some spelling and typographical errors; background may be distracting.</li> <li>Figures and tables not related to text, or are not appropriate, and/or are poorly labeled.</li> <li>Photographs/tables/graphs limited and do not improve understanding.</li> </ul>	<ul style="list-style-type: none"> <li>Some expected components are present, but poorly laid out and confusing to follow in absence of presenter.</li> <li>Text is hard to read, messy and contains multiple spelling and typographical errors; very poor background.</li> <li>Figures and tables are poorly done.</li> <li>Visual aids not used.</li> </ul>
<b>Knowledge of Project: Ability to Answer Questions</b>	<ul style="list-style-type: none"> <li>Presenter <b>clearly states what is to be discussed</b>.</li> <li>Entire talk is <b>organized around defined goals</b> and has <b>smooth transition</b> between sections.</li> <li>Concluding portion of talk <b>re-emphasizes the goals</b> and <b>what was learned</b>.</li> <li>Presenter answers difficult <b>questions</b> clearly and succinctly.</li> </ul>	<ul style="list-style-type: none"> <li>Presenter clearly states what is to be discussed.</li> <li>Entire talk is organized around defined goals and has smooth transition between sections.</li> <li>Concluding portion of talk re-emphasizes the goals and what was learned.</li> <li>Presenter answers most questions.</li> </ul>	<ul style="list-style-type: none"> <li>Overall goals are not clear to the listener.</li> <li>Some sections of the talk are not clearly related and/or somewhat choppy transitions.</li> <li>Concluding portion of talk re-emphasizes the goals and what was learned.</li> <li>Presenter has some difficulty answering challenging questions.</li> </ul>	<ul style="list-style-type: none"> <li>Overall goals are not apparent to the listener.</li> <li>Presentation moves off topic in a way that is not relevant or valuable.</li> <li>It was not possible to explain what was learned.</li> <li>Presenter has difficulty answering challenging questions.</li> </ul>	<ul style="list-style-type: none"> <li>Overall goals are not apparent to the listener.</li> <li>Presentation moves off topic in a way that is not relevant or valuable.</li> <li>It was not possible to explain what was learned.</li> <li>Presenter does not understand questions.</li> </ul>