

Summer Undergraduate Research Symposium 2019
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)
Hypothesis/ Goals and Background	<ul style="list-style-type: none"> • Background information was relevant and summarized well. Connections to previous literature and broader issues were clear. • Project had a goal or a logical hypothesis that was stated clearly and concisely; showed clear relevance. • Broader impacts beyond project clearly stated. 	<ul style="list-style-type: none"> • Background information was relevant, but connections were not clear. • A project goal or a logical hypothesis was presented and was reasonably clear and concise. • Broader impacts beyond project were present. 	<ul style="list-style-type: none"> • Background information was relevant, but connections were not made. • Questionable project goal or hypothesis was presented. • Broader impacts beyond project were unclear. 	<ul style="list-style-type: none"> • Little background information was included or connected. • Questionable hypothesis was presented and was not well supported or the goal of the project was unclear. • Broader impacts beyond project were absent. 	<ul style="list-style-type: none"> • Background information was absent. • Hypothesis or goal was inappropriate or not stated. • Broader impacts beyond project were absent.
Experimental Logic	<ul style="list-style-type: none"> • Excellent choice of experimental methods to address hypothesis or project goals. • Excellent original thinking or innovation of technique. • Clear discussion of controls or comparative groups; all appropriate controls or comparative groups were included. 	<ul style="list-style-type: none"> • Very good choice of experimental methods to address hypothesis or project goals. • Very good original thinking. • Clear discussion of controls or comparative groups; most controls or comparative groups were included. 	<ul style="list-style-type: none"> • Good choice of experimental methods to address hypothesis or project goals. • Good original thinking. • Adequate discussion of controls or comparative groups; some significant controls or comparative groups were lacking. 	<ul style="list-style-type: none"> • Experimental methods not appropriate to address hypothesis or project goals. • No original thinking. • Controls or comparative groups not adequately described; some controls or comparative groups missing. 	<ul style="list-style-type: none"> • Experimental methods section missing. • No original thinking. • Serious lack of controls or discussion of controls.
Results	<ul style="list-style-type: none"> • Substantial amounts of high quality data were presented sufficient to address hypothesis or project goals. • Presentation of data was clear, thorough, and logical. 	<ul style="list-style-type: none"> • Substantial amounts of good data were presented sufficient to address hypothesis or project goals. • Presentation of data was clear and logical. 	<ul style="list-style-type: none"> • Adequate amounts of reasonably good data were presented to address hypothesis or project goals. • Presentation of data was not entirely clear. 	<ul style="list-style-type: none"> • Some data were lacking, or not fully sufficient to address hypothesis or project goals. • Presentation of data was included, but unclear or difficult to comprehend. 	<ul style="list-style-type: none"> • Results are not yet available or reproducible. • Presentation of data was missing.
Conclusions and Future Work	<ul style="list-style-type: none"> • Reasonable conclusions were given and were strongly supported with evidence. • Conclusions were connected to project goals or hypothesis and their relevance in a wider context was discussed. 	<ul style="list-style-type: none"> • Reasonable conclusions were given and were supported with evidence. • Conclusions were connected to project goals or hypothesis but their relevance was not discussed. 	<ul style="list-style-type: none"> • Reasonable conclusions were given. • Conclusions were not compared to project goals or hypothesis and their relevance was not discussed. 	<ul style="list-style-type: none"> • Conclusions were given. • Little connection of conclusions to project goals or hypothesis was apparent. 	<ul style="list-style-type: none"> • Conclusions were missing. • Conclusions were not connected to the project goals or hypothesis.

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