

OSPA Evaluation Form and Rubric

Scientific Approach

1. Demonstration of scientific reasoning:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • Scientific and/or societal problem is not identified or explained. • Presentation does not demonstrate awareness of the field and/or broader context of the work. • Research question(s), objective(s), approach, and/or plan are not identified or explained. 	<ul style="list-style-type: none"> • Scientific and/or societal problem is identified but not clearly explained. • Presentation demonstrates limited awareness of the field and/or broader context of the work. • Research question(s), objective(s), approach, and/or plan are not appropriate for the identified problem. 	<ul style="list-style-type: none"> • Scientific and/or societal problem is identified and explained. • Presentation demonstrates awareness of the field and/or broader context of the work. • Elements of research question(s), objective(s), approach, and/or plan are not appropriate for the identified problem. 	<ul style="list-style-type: none"> • Scientific and/or societal problem is fully identified and clearly explained. • Presentation demonstrates thorough awareness of the field and/or broader context of the work • Research question(s), objective(s), approach, and/or plan are fully appropriate for the identified problem and clearly explained.

2. Appropriateness of instrumentation, data, and/or analysis techniques to address the science question:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • No connection of instrumentation, data, or analysis techniques to research objectives. • Data analysis/processing is incomplete or inadequate. • Techniques are implemented inaccurately or inappropriately. • Key analytical challenges are not addressed. 	<ul style="list-style-type: none"> • Limited connection of instrumentation, data, or analysis techniques to research objectives. • Data analysis/processing contains errors. • Techniques are implemented with some errors. • Key analytical challenges are ineffectively addressed. 	<ul style="list-style-type: none"> • Clear connection of instrumentation, data, and/or analysis techniques to research objectives. • Data analysis/processing contains gaps. • Techniques are implemented accurately, with only minor issues. • Key analytical challenges are addressed. 	<ul style="list-style-type: none"> • Strong connection of instrumentation, data, and/or analysis techniques to research objectives. • Data analysis/processing is complete and without errors. • Techniques are implemented accurately and appropriately. • Key analytical challenges are comprehensively addressed.

3. Strength and supportability of conclusions and/or next steps:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • Presentation does not address limitations in the approach or data. • Results assessed without considering uncertainties. • No meaningful comparison with classical, modern, or novel perspectives on the problem. • Presented interpretation is inappropriate and unsound. 	<ul style="list-style-type: none"> • Presentation partially addresses limitations in the approach and data. • Results assessed with some consideration of uncertainties. • Limited comparison with classical, modern, or novel viewpoints on the problem. • Presented interpretation is partially appropriate and sound. 	<ul style="list-style-type: none"> • Presentation addresses limitations in the approach and data. • Results assessed with consideration of uncertainties. • Moderate comparison with classical, modern, and novel perspectives on the problem. • Presented interpretation is appropriate and sound. 	<ul style="list-style-type: none"> • Presentation thoroughly addresses limitations in the approach and data. • Results assessed with comprehensive consideration of uncertainties. • Thorough comparison with classical, modern, and novel viewpoints on the problem. • Presented interpretation is highly appropriate and insightful.

Presentation Effectiveness:

4. Effective use of allotted time or space to convey important information:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • Allotted time, space not used well. • Presentation missing logical flow. • Presentation unprepared. 	<ul style="list-style-type: none"> • Allotted time, space used ineffectively. • Presentation frequently loses logical flow. • Presentation reflects limited preparation. 	<ul style="list-style-type: none"> • Allotted time, space mostly used well. • Presentation occasionally loses logical flow. • Presentation reflects adequate preparation. 	<ul style="list-style-type: none"> • Allotted time, space used well. • Presentation is fully engaging and has a logical flow. • Presentation reflects thorough preparation.

5. Appropriateness of presentation to audience level and interests:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • Overuse of jargon or language that is not accessible to non-experts. • Relevance of work to section and/or session themes is not explained. • Presentation content is scattered and not engaging. 	<ul style="list-style-type: none"> • Use of jargon or language that is not accessible to non-experts. • Relevance of work to section and/or session themes is mentioned but not explained. • Presentation content is clear or interesting. 	<ul style="list-style-type: none"> • Minimal use of jargon or language that is not accessible to non-experts. • Relevance of work to section and/or session themes is explained. • Presentation content is clear and interesting 	<ul style="list-style-type: none"> • Avoids the use of jargon or language that is not accessible to non-experts. • Relevance of work to section and/or session themes is thoroughly explained. • Presentation content is exceptionally clear and interesting.

Presentation Visuals:

6. Figures, tables, and graphics aid in comprehension of procedures and results:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • Visuals such as figures or tables are not used. 	<ul style="list-style-type: none"> • Visuals such as figures or tables used but don't aid comprehension of the presentation. 	<ul style="list-style-type: none"> • Visuals such as figures or tables aid comprehension of the presentation. 	<ul style="list-style-type: none"> • Excellent use of visuals such as figures or tables that significantly aid comprehension of the presentation.

7. Materials are clearly visible and readable for the audience:

1 – Not evident	2 - Emerging	3 - Proficient	4 - Exemplary
<ul style="list-style-type: none"> • All fonts and figures difficult to read. • Presentation includes distracting design elements (colors, fonts, symbols, etc.). • Presentation content is disorganized. 	<ul style="list-style-type: none"> • Some fonts and figures are difficult to read. • Presentation includes minimal or ineffective design elements. • Presentation content is somewhat disorganized. 	<ul style="list-style-type: none"> • Most fonts and figures easy to read. • Presentation includes clear design elements. • Presentation content is organized. 	<ul style="list-style-type: none"> • Fonts and figures always easy to read. • Presentation includes clear design elements that significantly aid in understanding the presentation. • Presentation content is consistently and clearly organized.

Additional Feedback

1. Please provide feedback on the student's understanding of the broader context of their work. Consider, for example:
 - how well the student demonstrates background knowledge about the problem,
 - how well the student explains the contribution of the results to advancing the field,
 - how well the student explains the scientific and/or societal implications of the results and final utility,
 - whether the student's interpretation of the results addresses key aspects of the research question, and
 - the student's ability to answer questions (if applicable) and discuss the project.
2. Please provide feedback on 1 to 3 strengths of the presentation that are related to the scoring categories.
3. Please provide feedback on 1-3 areas for improvement that are related to the scoring categories.