Institute of Food Technologists
Student Association

ΦΤΣ
The Honor Society of
FOOD SCIENCE
& TECHNOLOGY

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Undergraduate Research Abstract Rubric

Explanation of Objectives and Background (20 Points)

Clarity of Research Objectives (10 Points)

10-8 Points: Research objectives are clearly and explicitly stated, leaving no ambiguity. They are well-defined and specific. The objectives effectively guide the research direction.

7-4 Points: Objectives are stated and generally clear but may lack specificity or some detail. There is room for improvement in how they are articulated.

3-0 Points: Objectives are vaguely stated or not clearly aligned with the research. There may be confusion about the direction of the research.

Background and Context (10 Points)

10-8 Points: The background is thoroughly explained, providing a strong context that situates the research within its broader field.

7-4 Points: The background provides sufficient context but may lack depth or detail in some areas.

3-0 Points: The background is poorly explained or lacks sufficient detail, making it difficult to understand the context of the research.

Experimental Methodology (10 Points)

Appropriateness of Methodology (10 Points)

10-8 Points: The chosen methodology is highly appropriate for research objectives and is well-justified. The methods are relevant and aligned with best practices in the field.

7-4 Points: The methodology is appropriate but may not be the most optimal choice. Justification is provided but could be stronger or more detailed.

3-0 Points: The methodology is inappropriate or poorly justified, raising questions about the validity of the research. There may be better methods that were not considered or adequately explained.

Results (25 Points)

Clarity of Results (10 Points)

10-8 Points: Results are stated in a clear, logical, and well-organized manner.

7-4 Points: Results are stated clearly, but clarity could be improved.

3-0 Points: Results are poorly organized or unclear, making it difficult to understand.

Interpretation and Explanation of Results (10 Points)

10-8 Points: The results are thoroughly interpreted and explained, with clear connections made between the data and the research objectives.

7-4 Points: The interpretation of results is generally sound but may lack adequate depth or clarity regarding its relevance to the objectives.

3-0 Points: The interpretation is weak or unclear, with little connection made between the data and the research objectives.

Use of Statistical Analysis (5 Points)

5-4 Points: Indicates the use of appropriate statistical analyses. The analysis appears to be correctly performed and interpreted.

3-2 Points: Statistical analyses are used, but there may be minor issues with the choice of methods, their application, or the interpretation of results.

1-0 Points: Statistical analyses are inappropriate, poorly applied, or not used when needed.

Soundness and Relevance of Conclusions (25 Points)

Logical Consistency of Conclusions (15 Points)

15-11 Points: Conclusions are logically derived from the results and are consistent with the data presented. They effectively summarize the key findings and implications of the research.

10-6 Points: Conclusions are generally consistent with the results, but there may be minor logical gaps or overgeneralizations. The summary of findings is adequate but could be clearer or more precise.

5-0 Points: Conclusions are poorly connected to the results, with significant logical gaps or unsupported statements. The summary of findings may be unclear or inconsistent with the data.

Relevance and Significance of Research (10 Points)

10-8 Points: The research's relevance is compellingly argued, with strong logic showing how it fills a gap in the existing literature or addresses a significant problem. The potential impact of the research is well-articulated.

7-4 Points: The research is relevant, but the logic for its significance could be stronger. The potential impact is mentioned but not fully explored, leaving some questions about its contribution to the field.

3-0 Points: The relevance of the research is weakly argued or unclear. The significance is not adequately supported, and it's difficult to see how the research contributes to the field.

Professionalism, Organization, and Style (20 Points)

Overall Organization and Structure (10 Points)

10-8 Points: The work is excellently organized, with a clear structure that enhances the flow and readability. Sections are logically ordered, and transitions between ideas are smooth and effective.

7-4 Points: The work is generally well-organized, but there may be minor issues with the structure or flow. The order of sections is logical, but some transitions may be awkward or unclear.

3-0 Points: The work is poorly organized, with sections that are out of order, missing, or confusing. The lack of structure significantly detracts from readability and comprehension.

Clarity and Precision of Writing (10 Points)

10-8 Points: Writing is clear, precise, and free of errors. The language is appropriate for the audience, with technical terms correctly used and explained. The style is professional and engaging.

7-4 Points: Writing is generally clear, but there may be some minor errors or awkward phrasing. Technical terms are used correctly, but explanations may be lacking. The style is professional, but there is room for improvement in clarity or engagement.

3-0 Points: Writing is unclear or imprecise, with frequent errors or confusing phrasing. Technical terms may be misused or not explained. The style may be unprofessional, overly informal, or difficult to follow.

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Undergraduate Research Poster Presentation Rubric

Objectives and Background (15 Points)

Clarity of Research Objectives (5 Points)

5-4 Points: Research objectives are clearly and explicitly stated, leaving no ambiguity. They are well-defined, specific, and directly aligned with the research question or hypothesis. The objectives effectively guide the research direction.

3-2 Points: Objectives are stated and generally clear but may lack specificity or some detail. They are aligned with the research question, but there is room for improvement in how they are articulated.

1-3 Points: Objectives are vaguely stated or not clearly aligned with the research question. There may be confusion about the direction of the research, indicating a lack of clarity in the planning stage.

Background and Context (5 Points)

5-4 Points: The background is thoroughly explained, providing a strong context that situates the research within its broader field. The importance of the study is clearly demonstrated, with well-supported arguments that link the research to relevant theories or prior studies.

3-2 Points: The background provides sufficient context but may lack depth or detail in some areas. The importance of the study is mentioned, but the connection to broader research or theories could be stronger or more clearly articulated.

1-3 Points: The background is poorly explained or lacks sufficient detail, making it difficult to understand the context of the research. The importance of the study is not clearly demonstrated, and there may be little connection to relevant theories or prior studies.

Relevance and Significance of Research (5 Points)

5-4 Points: The research's relevance is compellingly argued, with strong evidence showing how it fills a gap in the existing literature or addresses a significant problem. The potential impact of the research is well- articulated.

3-2 Points: The research is relevant, but the argument for its significance could be stronger. The potential impact is mentioned but not fully explored, leaving some questions about its contribution to the field.

1-0 Points: The relevance of the research is weakly argued or unclear. The significance is not adequately supported, and it's difficult to see how the research contributes to the field.

Experimental Methodology (15 Points)

Clarity and Detail of Methodological Description (10 Points)

10-8 Points: The methodology is described in detail, with clear explanations of each step. The procedures are logically organized, and the description is sufficient for replication by others in the field.

7-4 Points: The methodology is adequately described, but some steps may be under-explained or lack detail. While the general approach is clear, there may be minor gaps that could impact replication.

3-0 Points: The methodological description is unclear or lacks sufficient detail, making it difficult to understand the procedures used. Key steps may be missing, or the organization may be confused.

Appropriateness of Methodology (5 Points)

5-4 Points: The chosen methodology is highly appropriate for the research objectives and is well-justified. The methods are current, relevant, and aligned with best practices in the field.

3-2 Points: The methodology is appropriate but may not be the most current or optimal choice. Justification is provided but could be stronger or more detailed.

1-0 Points: The methodology is inappropriate or poorly justified, raising questions about the validity of the research. There may be better methods that were not considered or adequately explained.

Results (20 Points)

Clarity and Organization of Results (5 Points)

5-4 Points: Results are presented in a clear, logical, and well-organized manner. Data is easy to understand, and the use of tables, graphs, and other visual aids effectively enhances comprehension.

3-2 Points: Results are presented clearly, but the organization could be improved. Visual aids are used, but their effectiveness may be limited by minor issues in labeling, scaling, or presentation.

1-0 Points: Results are poorly organized or unclear, making it difficult to interpret the data. Visual aids are lacking or ineffective, leading to confusion or misinterpretation.

Interpretation and Explanation of Results (10 Points)

10-8 Points: The results are thoroughly interpreted and explained, with clear connections made between the data and the research objectives. The discussion is insightful and considers alternative explanations where appropriate.

7-4 Points: The interpretation of results is generally sound but may lack depth or overlook some connections between the data and the objectives. The explanation is adequate but could be more thorough.

3-0 Points: The interpretation is weak or unclear, with little connection made between the data and the research objectives. The explanation may be superficial, or key aspects of the results are not addressed.

Use of Statistical Analysis (5 Points)

5-4 Points: Appropriate and robust statistical analyses are used to support the results. The choice of statistical methods is well-justified, and the analysis is correctly performed and interpreted.

3-2 Points: Statistical analyses are used, but there may be minor issues with the choice of methods, their application, or the interpretation of results. The analysis is adequate but could be improved.

1 Point: Statistical analyses are inappropriate, poorly applied, or not used when needed. This significantly weakens the validity of the results.

Soundness of Conclusions (15 Points)

Logical Consistency of Conclusions (10 Points)

10-8 Points: Conclusions are logically derived from the results and are consistent with the data presented. They effectively summarize the key findings and implications of the research.

7-4 Points: Conclusions are generally consistent with the results, but there may be minor logical gaps or overgeneralizations. The summary of findings is adequate but could be clearer or more precise.

3-0 Points: Conclusions are poorly connected to the results, with significant logical gaps or unsupported statements. The summary of findings may be unclear or inconsistent with the data.

Implications and Significance of Conclusions (5 Points)

5-4 Points: The implications of the research are clearly articulated and well-supported by the data. The significance of the findings is discussed in detail, with consideration of the broader impact on the field or practical applications.

3-2 Points: The implications are mentioned but may not be fully explored or supported by the data. The significance of the findings is acknowledged, but the discussion could be more comprehensive.

1-0 Points: The implications and significance of the conclusions are unclear or not discussed. The conclusions may be superficial, lacking a discussion of the broader impact or practical applications.

Organization and Writing (20 Points)

Structure and Flow (5 Points)

5-4 Points: The poster is exceptionally well-structured, with a clear, logical flow that enhances understanding. Each section transitions smoothly into the next, creating a cohesive narrative.

3-2 Points: The poster has a logical structure, but there may be minor issues with the flow or transitions between sections. The narrative is generally clear, but some parts could be better connected.

1-0 Points: The poster lacks a clear structure, making it difficult to follow. Sections may feel disjointed, and the overall narrative is unclear.

Clarity and Precision of Language (5 Points)

5-4 Points: Language is clear, concise, and free of errors. The terminology is used correctly, and explanations are appropriate for the audience.

3-2 Points: Language is generally clear, with minor errors or areas of awkward phrasing. Terminology is mostly correct, but some explanations may be unclear or confusing.

1-0 Points: Language is unclear or imprecise, with frequent errors. Terminology may be misused, and explanations are often confusing or inadequate.

Use of Figures and Tables (10 Points)

10-8 Points: Figures and tables are well-designed, relevant, and enhance the poster.

7-4 Points: Figures and tables are generally effective, but there may be minor issues with design or relevance.

3-0 Points: Figures and tables are poorly designed, unclear, or irrelevant, detracting from the overall presentation.

Ability to Answer Questions (15 Points)

Defense of Research Decisions from Judges' Questions (10 Points)

10-8 Points: Provides thorough and convincing answers that justify decisions made in the research.

7-4 Points: Provides answers that somewhat justify most decisions, with minor gaps.

3-0 Points: Struggles to justify decisions, with several key areas inadequately defended.

Responding to Judge Criticism or Concerns (5 Points)

5-4 Points: Responds effectively to criticism of the research, supporting themselves with calm, clear, and logical reasoning.

3-2 Points: Responses to criticism are adequate but may lack some clarity or logic.

1-0 Points: Fails to respond effectively to criticism, with poor, angry, or non-existent reasoning.

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Undergraduate Research Oral Presentation Rubric

Explanation of Objectives and Background (15 Points)

Background and Context (10 Points)

10-8 Points: The background information is thorough and relevant, providing a strong justification for the research objectives.

7-4 Points: The background information is relevant, but certain gaps may leave some research objectives unjustified.

3-0 Points: The background information is either insufficient or not directly relevant, making it difficult to justify the research objectives.

Clarity of Research Objectives (5 Points)

5-4 Points: The objectives of the research are clearly stated, providing a strong foundation for the presentation content.

3-2 Points: The objectives are stated, but may be confusing or unclear, affecting the clarity of presentation content.

1-0 Points: The objectives are unclear or omitted, leading to confusion about the purpose of the research.

Research Design and Results (20 Points)

Explanation of Research Design (10 Points)

10-8 Points: The approach to solving research objectives is well thought out and effective. The presenter clearly explains how the research directly addresses the objectives.

7-4 Points: The approach to solving research objectives is generally effective, but there may be some gaps in its explanation.

3-0 Points: The approach to solving research objectives is inadequate, with aspects left unresolved or poorly explained.

Presentation of Results (10 Points)

10-8 Points: Data (slides, figures, tables) is well- presented, relevant, and enhances the presentation. They are effectively integrated into the talk.

7-4 Points: Data is generally effective, but there may be minor issues with visual communication or relevance. They support the presentation but it could be improved.

3-0 Points: Data is poorly designed, unclear, or irrelevant, detracting from the overall presentation.

Explanation and Soundness of Conclusions (15 Points)

Logical Consistency of Conclusions (10 Points)

10-8 Points: Conclusions are logically consistent with the data and analysis presented, and they effectively address the research objectives.

7-4 Points: Conclusions are generally logical, but there may be some minor inconsistencies or gaps in reasoning. They address the research objectives, but not fully.

3-0 Points: Conclusions are illogical or inconsistent with the data, failing to adequately address the research objectives.

Contribution to the Field (5 Points)

5-4 Points: The research clearly differentiates itself from existing literature and contributes to the field.

3-2 Points: The research contributes to the field, but the impact could be greater.

1-0 Points: The research closely resembles existing work and offers limited contribution to the field.

Ability to Answer Judge's Questions (10 Points)

Accuracy and Completeness of Responses (10 Points)

10-8 Points: The presenter answers questions accurately and thoroughly, demonstrating a deep understanding of the research and related topics.

7-4 Points: Responses are generally accurate, but there may be minor errors or omissions. The presenter shows good understanding but may struggle with complex questions.

3-0 Points: Responses are inaccurate or incomplete, indicating a lack of understanding or preparation.

Visual Content (15 Points)

Structure and Flow (10 Points)

10-8 Points: The presentation is exceptionally well-structured, with a clear, logical flow that enhances understanding. Each section transitions smoothly into the next, creating a cohesive narrative.

7-4 Points: The presentation has a logical structure, but there may be minor issues with the flow or transitions between sections. The narrative is generally clear, but some parts could be better connected.

3-0 Points: The presentation lacks a clear structure, making it difficult to follow. Sections may feel disjointed, and the overall narrative is unclear.

Clarity and Precision of Slides (5 Points)

5-4 Points: Slides are well organized, quickly understood, and visually appealing.

3-2 Points: Most slides are well designed, but a few have errors which distract or create an inability to understand the content.

1-0 Points: Slides are poorly designed, leading to confusion and disinterest.

Verbal Presentation (25 Points)

Delivery and Presentation Style (10 Points)

10-8 Points: Verbal delivery is delivered with clarity, professionalism, and enthusiasm. The speaker engages the audience and uses appropriate body language and eye contact.

7-4 Points: The verbal delivery is generally professional, but there may be occasional lapses in clarity or engagement. The speaker's body language and eye contact are appropriate but could be improved.

3-0 Points: The verbal delivery lacks professionalism, with significant issues in clarity, engagement, or use of body language and eye contact.

Depth of Knowledge and Understanding (10 Points)

10-8 Points: The presenter demonstrates a thorough understanding of the topic, effectively addressing complex concepts and questions.

7-4 Points: The presenter shows a good understanding of the topic but may struggle with more complex concepts or questions.

3-0 Points: The presenter demonstrates limited understanding of the topic, with significant gaps in knowledge.

Timing and Pacing (5 Points)

5-4 Points: The presentation is well-paced, with time managed effectively to cover all key points within the allotted time.

3-2 Points: The presentation is generally well-paced, but a few sections are either too fast to understand or too slow to maintain engagement.

1-0 Points: The presentation is either rushed or too slow, with poor time management affecting the coverage of key points.