

# IFTSA Undergraduate Research Competition

## RULES AND GUIDELINES

### **BACKGROUND**

Designed to showcase outstanding research at the undergraduate level, this competition seeks students engaged in independent research who are interested in presenting at the IFT Annual Event. Finalists will have the opportunity to network with industry and academic members.

### **PURPOSE**

1. To encourage and stimulate interest in independent undergraduate research in the area of food science and technology.
2. To provide an opportunity for undergraduates to organize and present their original research through oral and poster presentations.
3. To provide an opportunity for networking within IFTSA for undergraduate students as well as members of industry and academia.

### **SCHEDULE**

Date	Event
April 15, 2025	Application submission deadline
May 15, 2025	Finalists notified
July 13 - July 16, 2025	IFT FIRST in Chicago

### **ELIGIBILITY**

1. Any student member of IFT, as of April 1, 2025, who is an undergraduate student.
2. Work must have been done individually by an undergraduate.
3. A signed letter from the Department Head or a professor verifying the originality of the student's work will be required. The letter and abstract must be submitted through the IFT.org submission portal by April 15th at 11:59 pm CST (Chicago Time UTC-6). Applications received after April 15th will not be accepted.

## **PRELIMINARY ROUND PROCEDURES**

### **Application**

1. To enter the competition, students must be student members of IFT by April 15th at 11:59 pm CST (Chicago Time UTC-6).
2. Abstracts must not exceed five hundred (500) words in length (titles not included), and should include the study objective, methodology, results, and significance and implications of results. At least five (5) pertinent references must be included. References are not included in the word count and must follow the Journal of Food Science citation style.
3. Two (2) versions of the abstract must be submitted. One must include the paper title, as well as the name and address of the author. The second version of the abstract must only include the paper title (no university or institution names included). In both versions, no professors' names may appear as co-author.
4. A letter, signed by the student's Department Head or professor, verifying the originality of the work, must be submitted.

### **Judging**

Abstracts will be judged based on the criteria below and ranked as outlined in the supplemental Operations Document. Finalists will be chosen by a jury of at least three (3) IFT members representing academia, industry, and/or government as appointed by the Competition Chair.

1. Each submission will be reviewed by at least three (3) judges
2. Each entry will be scored based on 100 points, with the points to be distributed as shown in the rubric.
3. Judges will select a maximum of six (6) finalists.
4. All competing teams will be informed of only their respective scores and judges' comments. Each judge will provide 1-2 sentences of feedback at a minimum.
5. Finalists will be notified of their status by May 15<sup>th</sup>.
6. If selected, finalists will present their research as a poster AND oral presentation at the IFT FIRST Annual Event.

## **FINAL ROUND PROCEDURES**

### **Poster Presentation**

Finalists will present their posters during the IFT FIRST Annual Event. Posters must be smaller than the display board provided by IFT (3 ft. tall x 7 ft. wide).

1. Finalists will present their research to judges, as well as other event attendees, during the 60–90-minute poster session.
2. The posters may include, but are not limited to, sections detailing



- a. The purpose of the work
  - b. Experimental methodology/design
  - c. Results
  - d. Significance of the results
3. All text and images should be with high resolution and be clearly visible from a short distance.
  4. Finalists are expected to stand by their posters during the poster session and be prepared to introduce their research for 3-5 minutes and answer the judges' questions.

### **Judging**

1. Posters will be judged based on the criteria outlined in the rubric.
2. Posters will be judged by a jury of at least three (3) IFT members representing academia, industry, and/or government.
3. No judge may vote on research presented by a member of their institution; adjustments will be made for this factor.

### **Oral Presentation**

1. Finalists will present their research during the IFT FIRST Annual Event.
2. The presentation is limited to ten (10) minutes per speaker, plus an additional five (5) minutes to answer questions from judges.
3. The presentation should outline the scope of the research, study methodology and design, results, and significance of the results.

### **Judging**

1. Presentations will be judged based on the criteria outlined in the rubric.
2. Oral presentations will be judged by a jury of at least three (3) IFT members representing academia, industry, and/or government.
3. No judge may vote on research presented by a member of their institution; adjustments will be made for this factor.

### **AWARDS**

1. A max of six (6) individuals will make it to the finals. The teams will all be judged against one another in the finals.
2. Each finalist will receive a travel and registration reimbursement of up to \$600.
3. The 1st place winner will receive \$1,000, the 2nd place winner will receive \$750, and the 3rd place winner will receive \$500.

## **NOTE**

- Any team or team member that does not follow the IFT Event Code of Conduct will risk being disqualified.

## **Challenges and Penalties**

Challenges based on rule infractions during oral presentations must be made immediately after the presentation, and no later than the finalization of scores. It is the duty of the Chair to ensure that infractions in written proposals and product tastings are noted. Scores should be considered finalized by one (1) hour prior to start of the IFTSA Closing Ceremony. No challenges will be entertained once this time has passed.

Challenges must be referred to the Chair and/or VP of Competitions. The Chair will refer challenges to the VP of Competitions, IFTSA Office of the President, and IFTSA Staff Liaison. It is the necessary duty that all Competition Chairs, VP of Competition, and IFTSA Office of the President report any infractions they receive or notice during competition. Final decisions on challenges, penalties, and IFT Code of Conduct will be made by the IFTSA Staff Liaison and disseminated to necessary parties. This may include input from judges.

## **QUESTIONS**

Contact the IFTSA Undergraduate Research Competition Chair via email at [iftsa.urb@gmail.com](mailto:iftsa.urb@gmail.com).

### Undergraduate Research Abstract Rubric

Rubric Category	Explanation of objectives and background	Experimental methodology	Results	Soundness and relevance of conclusions	Professionalism, organization and style
Points	20	10	25	25	20
	<b>Clarity of Research Objectives (10 Points)</b>	<b>Appropriateness of Methodology (10 Points)</b>	<b>Clarity of Results (10 Points)</b>	<b>Logical Consistency of Conclusions (15 Points)</b>	<b>Overall Organization and Structure (10 Points)</b>
	<b>10-8 Points:</b> Research objectives are clearly and explicitly stated leaving no ambiguity. They are well-defined and specific. The objectives effectively guide the research direction.	<b>10-8 Points:</b> The chosen methodology is highly appropriate for the research objectives and is well-justified. The methods are relevant and aligned with best practices in the field.	<b>10-8 Points:</b> Results are stated in a clear, logical, and well-organized manner.	<b>15-11 Points:</b> 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.	<b>10-8 Points:</b> 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.
	<b>7-4 Points:</b> Objectives are stated and generally clear but may lack specificity or some detail. There is room for improvement in how they are articulated.	<b>7-4 Points:</b> The methodology is appropriate but may not be the most optimal choice. Justification is provided but could be stronger or more detailed.	<b>7-4 Points:</b> Results are stated clearly, but the clarity could be improved.	<b>10-6 Points:</b> 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.	<b>7-4 Points:</b> 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.
	<b>3-0 Points:</b> Objectives are vaguely stated or not clearly aligned with the research. There may be confusion about the direction of the research.	<b>3-0 Points:</b> 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.	<b>3-0 Points:</b> Results are poorly organized or unclear, making it difficult to understand.	<b>5-0 Points:</b> 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.	<b>3-0 Points:</b> 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.
	<b>Background and Context (10 Points)</b>		<b>Interpretation and Explanation of Results (10 Points)</b>	<b>Relevance and Significance of Research (10 Points)</b>	<b>Clarity and Precision of Writing (10 Points)</b>
	<b>10-8 Points:</b> The background is thoroughly explained, providing a strong context that situates the research within its broader field.		<b>10-8 Points:</b> The results are thoroughly interpreted and explained, with clear connections made between the data and the research objectives.	<b>10-8 Points:</b> 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.	<b>10-8 Points:</b> 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.
	<b>7-4 Points:</b> The background provides sufficient context, but may lack depth or detail in some areas.		<b>7-4 Points:</b> The interpretation of results is generally sound, but may lack adequate depth or clarity regarding its relevance to the objectives.	<b>7-4 Points:</b> 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.	<b>7-4 Points:</b> 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.
	<b>3-0 Points:</b> The background is poorly explained or lacks sufficient detail, making it difficult to understand the context of the research.		<b>3-0 Points:</b> The interpretation is weak or unclear, with little connection made between the data and the research objectives.	<b>3-0 Points:</b> 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.	<b>3-0 Points:</b> 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.
			<b>Use of Statistical Analysis (5 Points)</b>		
			<b>5-4 Points:</b> Indicates the use of appropriate statistical analyses. The analysis appears to be correctly performed and interpreted.		
			<b>3-2 Points:</b> Statistical analyses are used, but there may be minor issues with the choice of methods, their application, or the interpretation of results.		
			<b>1-0 Points:</b> Statistical analyses are inappropriate, poorly applied, or not used when they are needed.		

### Undergraduate Research Oral Presentation Rubric

Rubric Category	Explanation of Objectives and Background	Research Design and Results	Explanation and Soundness of Conclusions	Ability to answer judge's questions	Visual Content	Verbal Presentation
Points	15	20	15	10	15	25
	<b>Background and Context (10 Points)</b>	<b>Explanation of Research Design (10 Points)</b>	<b>Logical Consistency of Conclusions (10 Points)</b>	<b>Accuracy and Completeness of Responses (10 Points)</b>	<b>Structure and Flow (10 Points)</b>	<b>Delivery and Presentation Style (10 Points)</b>
	<b>10-8 Points:</b> The background information is thorough and relevant, providing a strong justification for the research objectives.	<b>10-8 Points:</b> The approach to solving research objectives is well thought out and effective. The presenter clearly explains how the research directly addresses the objectives.	<b>10-8 Points:</b> Conclusions are logically consistent with the data and analysis presented, and they effectively address the research objectives.	<b>10-8 Points:</b> The presenter answers questions accurately and thoroughly, demonstrating a deep understanding of the research and related topics.	<b>10-8 Points:</b> 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.	<b>10-8 Points:</b> The verbal delivery is delivered with clarity, professionalism, and enthusiasm. The speaker engages the audience and uses appropriate body language and eye contact.
	<b>7-4 Points:</b> The background information is relevant, but certain gaps may leave some research objectives unjustified.	<b>7-4 Points:</b> The approach to solving research objectives is generally effective, but there may be some gaps in its explanation.	<b>7-4 Points:</b> Conclusions are generally logical, but there may be some minor inconsistencies or gaps in reasoning. They address the research objectives, but not fully.	<b>7-4 Points:</b> Responses are generally accurate, but there may be minor errors or omissions. The presenter shows good understanding but may struggle with complex questions.	<b>7-4 Points:</b> 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.	<b>7-4 Points:</b> 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.
	<b>3-0 Points:</b> The background information is either insufficient or not directly relevant, making it difficult to justify the research objectives.	<b>3-0 Points:</b> The approach to solving research objectives is inadequate, with aspects left unresolved or poorly explained.	<b>3-0 Points:</b> Conclusions are illogical or inconsistent with the data, failing to adequately address the research objectives.	<b>3-0 Points:</b> Responses are inaccurate or incomplete, indicating a lack of understanding or preparation.	<b>3-0 Points:</b> The presentation lacks a clear structure, making it difficult to follow. Sections may feel disjointed, and the overall narrative is unclear.	<b>3-0 Points:</b> The verbal delivery lacks professionalism, with significant issues in clarity, engagement, or use of body language and eye contact.

Clarity of Research Objectives (5 Points)	Presentation of Results (10 Points)	Contribution to the Field (5 Points)
<b>5-4 Points:</b> The objectives of the research are clearly stated, providing a strong foundation for the presentation content.	<b>10-8 Points:</b> Data (slides, figures, tables) is well-presented, relevant, and enhances the presentation. They are effectively integrated into the talk.	<b>5-4 Points:</b> The research clearly differentiates itself from existing literature and contributes to the field.
<b>3-2 Points:</b> The objectives are stated, but may be confusing or unclear, affecting the clarity of presentation content.	<b>7-4 Points:</b> Data is generally effective, but there may be minor issues with visual communication or relevance. They support the presentation but could be improved.	<b>3-2 Points:</b> The research contributes to the field, but the impact could be greater.
<b>1-0 Points:</b> The objectives are unclear or omitted, leading to confusion about the purpose of the research.	<b>3-0 Points:</b> Data is poorly designed, unclear, or irrelevant, detracting from the overall presentation.	<b>1-0 Points:</b> The research closely resembles existing work and offers limited contribution to the field.

Clarity and Precision of Slides (5 Points)	Depth of Knowledge and Understanding (10 Points)
<b>5-4 Points:</b> Slides are well organized, quickly understood, and visually appealing.	<b>10-8 Points:</b> The presenter demonstrates a thorough understanding of the topic, effectively addressing complex concepts and questions.
<b>3-2 Points:</b> Most slides are well designed, but a few have errors which distract or create an inability to understand the content.	<b>7-4 Points:</b> The presenter shows a good understanding of the topic but may struggle with more complex concepts or questions.
<b>1-0 Points:</b> Slides are poorly designed, leading to confusion and disinterest.	<b>3-0 Points:</b> The presenter demonstrates limited understanding of the topic, with significant gaps in knowledge.

Timing and Pacing (5 Points)
<b>5-4 Points:</b> The presentation is well-paced, with time managed effectively to cover all key points within the allotted time.
<b>3-2 Points:</b> The presentation is generally well-paced, but a few sections are either too fast to understand or too slow to maintain engagement.
<b>1-0 Points:</b> The presentation is either rushed or too slow, with poor time management affecting the coverage of key points.

### Undergraduate Research Poster Presentation Rubric

Rubric Category	Objectives and background	Experimental methodology	Results	Soundness of conclusions	Organization and Writing	Ability to Answer Questions
Points	15	15	20	15	20	15
<b>Clarity of Research Objectives (5 Points)</b>	<b>Clarity and Detail of Methodological Description (10 Points)</b>	<b>Clarity and Organization of Results (5 Points)</b>	<b>Logical Consistency of Conclusions (10 Points)</b>	<b>Structure and Flow (5 Points)</b>	<b>Defense of Research Decisions From Judges' Questions (10 Points)</b>	
<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-3 Points:</b> 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.</p>	<p><b>10-8 Points:</b> 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.</p> <p><b>7-4 Points:</b> 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.</p> <p><b>3-0 Points:</b> 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 confusing.</p>	<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-0 Points:</b> Results are poorly organized or unclear, making it difficult to interpret the data. Visual aids are lacking or ineffective, leading to confusion or misinterpretation.</p>	<p><b>10-8 Points:</b> 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.</p> <p><b>7-4 Points:</b> 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.</p> <p><b>3-0 Points:</b> 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.</p>	<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-0 Points:</b> The poster lacks a clear structure, making it difficult to follow. Sections may feel disjointed, and the overall narrative is unclear.</p>	<p><b>10-8 Points:</b> Provides thorough and convincing answers that justify decisions made in the research.</p> <p><b>7-4 Points:</b> Provides answers that somewhat justify most most decisions, with minor gaps.</p> <p><b>3-0 Points:</b> Struggles to justify decisions, with several key areas inadequately defended.</p>	
<b>Background and Context (5 Points)</b>	<b>Appropriateness of Methodology (5 Points)</b>	<b>Interpretation and Explanation of Results (10 Points)</b>	<b>Implications and Significance of Conclusions (5 Points)</b>	<b>Clarity and Precision of Language (5 Points)</b>	<b>Responding to Judge Criticism or Concerns (5 Points)</b>	
<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-3 Points:</b> 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.</p>	<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> The methodology is appropriate but may not be the most current or optimal choice. Justification is provided but could be stronger or more detailed.</p> <p><b>1-0 Points:</b> 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.</p>	<p><b>10-8 Points:</b> 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.</p> <p><b>7-4 Points:</b> 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.</p> <p><b>3-0 Points:</b> 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.</p>	<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-0 Points:</b> 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.</p>	<p><b>5-4 Points:</b> Language is clear, concise, and free of errors. The terminology is used correctly, and explanations are appropriate for the audience.</p> <p><b>3-2 Points:</b> Language is generally clear, with minor errors or areas of awkward phrasing. Terminology is mostly correct, but some explanations may be unclear or confusing.</p> <p><b>1-0 Points:</b> Language is unclear or imprecise, with frequent errors. Terminology may be misused, and explanations are often confusing or inadequate.</p>	<p><b>5-4 Points:</b> Responds effectively to criticism of the research, supporting themselves with calm, clear, and logical reasoning.</p> <p><b>3-2 Points:</b> Responses to criticism are adequate but may lack some clarity or logic.</p> <p><b>1-0 Points:</b> Fails to respond effectively to criticism, with poor, angry, or non-existent reasoning.</p>	
<b>Relevance and Significance of Research (5 Points)</b>	<b>Use of Statistical Analysis (5 Points)</b>		<b>Use of Figures and Tables (10 Points)</b>			
<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1-0 Points:</b> 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.</p>	<p><b>5-4 Points:</b> 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.</p> <p><b>3-2 Points:</b> 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.</p> <p><b>1 Point:</b> Statistical analyses are inappropriate, poorly applied, or not used when they are needed. This significantly weakens the validity of the results.</p>		<p><b>10-8 Points:</b> Figures and tables are well-designed, relevant, and enhance the poster.</p> <p><b>7-4 Points:</b> Figures and tables are generally effective, but there may be minor issues with design or relevance.</p> <p><b>3-0 Points:</b> Figures and tables are poorly designed, unclear, or irrelevant, detracting from the overall presentation.</p>			