

# ChemE Jeopardy Rules

## Updated August 6, 2019

### ChemE Jeopardy Subcommittee Members

Chair: David Murhammer (University of Iowa)

Member: Derek Englert (University of Kentucky, Paducah)

Member: Travis Walker (South Dakota School of Mines and Technology)

Member: Bill Josephson (Auburn University)

Member: Saravanakumar Krishnan (College of Applied Sciences, Sohar)

Please contact David Murhammer at [david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu) regarding any questions.

### General Rules and Considerations

- A maximum of three teams can play in each game.
- There is a maximum of four players per team.
- Points are deducted for incorrect responses.
- Responses should be given in the form of a question, otherwise the response will be considered incorrect and the clue's value will be deducted from the team's score.
- Participants are not allowed to buzz in until the host finishes reading the clue. Buzzing in early should be considered as an incorrect response that leads to the clue value being deducted from the team's score.
- Only the person who buzzed in can respond to the clue. A response by any other team member or talking among the team members after they have buzzed in (talking among team members is allowed prior to buzzing in) should be considered an incorrect response and the clue's value should be deducted from the team's score.
- It is highly desirable to standardize the buzzer system such that it is clear which participant buzzed in first. Each participant should have their own buzzer; thus, a total of 12 buzzers (three teams of four). It is also desirable to have a buzzer system that does not allow participants to buzz in until the Emcee has completed reading the clue. Buzzer systems with these characteristics can be rented from BuzzerSystems.Com (<https://buzzersystems.com/Service/rentals.htm>). You should order the "Traditional" buzzer system with 12 buzzers by phoning them at 1-309-224-9945. The website can be referenced to see the equipment that can be rented and the cost, but one must call the given phone number to order.
- You should not allow participants to continually press the buzzer while you are reading the clues (even when the participants are locked out from buzzing in). Note that continuously pressing the buzzer while the clues are being read will not be allowed at the national competition.
- Preliminary games (i.e., those used to determine the teams that will compete in the semi-final games) may consist of only the Jeopardy and Final Jeopardy rounds. The regional host may choose to have Jeopardy, Double Jeopardy and Final Jeopardy rounds in the preliminary rounds. This rule only applies to regional competitions in which there are more than 9 teams competing and does not apply to the national competition.
- The semi-final and championship games at the regional and national competitions must consist of Jeopardy, Double Jeopardy and Final Jeopardy rounds.

- Only the team that selects the Daily Double may respond to the clue. In Jeopardy the Daily Double wager may be as high as the team's total points at the time that the Daily Double is chosen or 500 points, whichever is greater. Similarly, the maximum Daily Double wager in Double Jeopardy is either the team's total points or 1000 points, whichever is greater.
- Teams with negative scores will not be allowed to participate in Final Jeopardy.

### **Game Board**

- The PowerPoint template for Jeopardy/Double Jeopardy/Final Jeopardy can be obtained from Emily Miksiewicz (emilm@aiche.org) or David Murhammer (david-murhammer@uiowa.edu). Instructions for operating this file are given within this template. The clues ("answers") and correct responses ("questions") can be placed directly in the PowerPoint file. For the PowerPoint file to operate properly, it must be saved as a Macro-Enabled Presentation.
- This template, along with additional instructions and updates, can also be found at <http://sites.google.com/site/dufmedical/jeopardy>.
- Jeopardy and Double Jeopardy should each consist of six categories with five clues each. Final Jeopardy consists of one clue.
- The point totals vary from 100 to 500 points (multiples of 100) and from 200 to 1000 (multiples of 200) for each category in Jeopardy and Double Jeopardy, respectively.
- Jeopardy and Double Jeopardy contain 1 and 2 Daily Doubles, respectively. The corresponding clue(s) is determined randomly by the PowerPoint file.
- At least 50% of the categories in Jeopardy and Double Jeopardy should be chemical engineering related, e.g., related to material & energy balances, fluid flow, heat transfer, mass transfer, unit operations, separations, thermodynamics, chemical reaction engineering, chemical process safety, process control, chemical process design, biochemical engineering, etc.
- It is recommended that Jeopardy and Double Jeopardy each contain one (but not more) category outside of science and engineering, e.g., sports, geography, history, politics, pop culture, etc. (something of general interest to the clue writers).
- The remaining Jeopardy and Double Jeopardy categories should include technical topics such as biology, chemistry, physics, mathematics, engineering disciplines other than chemical, etc.
- The difficulty of the clues should increase as the value of the clue increases.
- The Final Jeopardy clue should be chemical engineering related.

### **Playing Jeopardy and Double Jeopardy**

- While it is the responsibility of the players to know the game rules, it is recommended that the Emcee briefly review the key rules prior to beginning the game.
- The Emcee should begin each round (Jeopardy or Double Jeopardy) by revealing the board and then reading the categories and providing special instructions (if needed) for given categories.
- A team is randomly chosen to go first in Jeopardy and begins the game by selecting a category and point value (e.g., "Sports for 100"). The Emcee then reads the clue, after which any player on any team can buzz in. The last team to give a correct response selects the next category and point value.

- The Emcee recognizes the first team to buzz in and calls on that team for a response. Only the person who buzzed in can respond to the clue. A response by any other team member or talking among the team members after they have buzzed in (talking among team members is allowed prior to buzzing in) should be considered an incorrect response and the clue's value should be deducted from the team's score.
- A correct response earns the point value of the clue and gives the answering team the right to select the next clue. If a team gives an incorrect response or fails to answer in time, then that amount will be deducted from the team's score and another team may buzz in (within five seconds after the Emcee indicates that the previous team's response was incorrect) and respond. If no correct response is given, then the Emcee reads the correct response.
- Teams can discuss responses prior to buzzing in, but all conversation must stop when someone buzzes in. The person that hits the buzzer must be the same person that gives the response. This person must begin their response within five seconds following recognition by the Emcee.
- Play continues in each Jeopardy and Double Jeopardy round until all of the clues have been read.
- Prior to revealing and reading the Daily Double clue, the Emcee should announce the team scores.
- The team with the lowest score entering the Double Jeopardy round chooses first.
- Key times (time begins when the Emcee has completed reading the clue): (i) five seconds to buzz in to answer, (ii) five seconds to provide a response after being recognized by the Emcee, (iii) five seconds to buzz in following an incorrect response by another team, and (iv) ten seconds to provide response to Daily Double.

### **Playing Final Jeopardy**

- At the end of Jeopardy (preliminary games) or Double Jeopardy (semi-final and championship games), the Emcee should announce the team scores and reveal the Final Jeopardy category.
- Teams with negative scores will not be allowed to participate in Final Jeopardy.
- Upon revealing the Final Jeopardy category, teams will have 30 seconds to write down their wager (which can be any value between 0 and the current team score). The resulting paper should be placed face down in front of the team.
- After all teams have placed their wager, the Emcee should reveal and read the Final Jeopardy clue.
- The teams have 30 seconds to write down their response, which must be in the form of a question. Each team must place the resulting paper face down in front of the team.
- The Emcee will then, beginning with the team with the lowest score, reveal the teams' responses and wagers, and their final score.
- After revealing all team responses & wagers, the Emcee should summarize the scores and announce the winner.

### **Tie Breaker**

- If two or more teams are tied for first place at the conclusion of Final Jeopardy, then a tiebreaker round will be played.
- The tied teams will be presented with a category and the clue will then be revealed.

- The first team to buzz in and give the correct response wins the game.
- If a team buzzes in too early (i.e., prior to the Emcee reading the entire clue), then their response will be incorrect.
- If a team provides an incorrect response, then another team may buzz in and respond.
- If no team provides a correct response, then another category will be presented. Thus, multiple clues need to be available since the tiebreaker could require multiple rounds.
- Contestants will not be eliminated from play for providing an incorrect response.
- The tiebreaking categories should be chemical engineering related.

### **ChemE Jeopardy at Regional Conferences**

- The host school is responsible for developing the clues & responses following the criteria given above. Suggestions for generating clues & responses include:
  - Utilizing chemical engineering (and other) textbooks.
  - Ask professors in your department to write clues & responses for courses that they have taught recently.
  - Review clues & responses from previous competitions for ideas. These can be obtained upon request from David Murhammer ([david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu)).
- The completed game board(s) must be inspected and approved by the AIChE Student Chapter Advisor and/or other chemical engineering faculty in order to verify the accuracy of the clues/responses and to identify potential alternative correct responses. This inspection and approval process must be documented by signing the “ChemE Jeopardy at Regional Conference Approval Form” and emailing to Emily Miksiewicz ([emilm@aiiche.org](mailto:emilm@aiiche.org)) and David Murhammer ([david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu)) at least 2 weeks prior to the regional conference. This form is provided at the end of this document.
- The AIChE Student Chapter Advisor and/or other chemical engineering faculty must also confirm that no advantage is given to the host school ChemE Jeopardy team(s) (if applicable). For example, having clues/questions pertaining to the host school, state, etc., would be considered inappropriate.
- The Emcees and assisting students should be trained for their roles and be aware of the correct responses and potential alternative correct responses. Note that multiple Emcees and assisting students will be needed for preliminary round games that are held simultaneously. In addition, a faculty member, graduate student or an industrial representative must be in the room for all games to enforce the rules and ensure that correct alternative responses are identified. This requires access to and review of the rules and the game board(s) prior to the competition.
- Emcee responsibilities:
  - Introducing the game.
  - Reading the categories at the start of each round.
  - Reading the clues.
  - Judging the answers; the faculty member, graduate student or industrial representative in the room (see above) can aid and/or overrule the emcee if deemed appropriate. Note that it is acceptable to ask for more detail or a more specific response if the Emcee believes that the initial response is partially correct.
  - Reading the response if no team correctly responds.
  - Keeping score using the scoring system provided with the PowerPoint file.

- Students should be recruited to assist the Emcee to make certain that the following are accomplished:
  - All of the items listed under the Emcee responsibilities (see above).
  - Have a backup scorer to confirm the accuracy of the team scores.
  - Accurate timekeeping in regard to responding to clues, etc. (see above).
- Other Considerations
  - If more than 9 teams are participating in the competition, then a preliminary game(s) will need to be conducted to reduce the number of teams to 9 for the semi-final games. This can be accomplished by having multiple preliminary games and/or giving byes to randomly selected teams. For example, if 12 teams are participating, then 3 teams would receive a bye and qualify for the semi-final games. The other 9 teams would play in 3 games run simultaneously and the top 2 teams from each game would qualify for the semi-final games. Please contact David Murhammer ([david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu)) if you want suggestions about setting up the preliminary game(s). Note that the schedule should be determined prior to the regional conference and all teams should be notified when and where they play first.
  - A game board consisting of Jeopardy and Final Jeopardy will need to be developed for every preliminary game that occurs at a different time (i.e., the same game board can be used for preliminary games that occur simultaneously in different rooms).
  - There should be a maximum of three teams competing in a game.
  - The purpose of the preliminary rounds is to reduce the number of teams to the nine that will compete in the regional semi-final games (with 3 teams participating in each of the 3 games). This applies if more than 9 teams are competing.
  - If 9 or fewer teams are participating in the competition, then a preliminary round is not needed.
  - The purpose of the semi-final games is to reduce the number of teams to 3 for the regional championship game.
  - The game board for the semi-final and regional championship games should consist of Jeopardy, Double Jeopardy and Final Jeopardy.
  - Please contact David Murhammer ([david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu)) if you have any questions.
- Team Members: Team members must all be undergraduate students at the time of the competition, i.e., no graduate students can be team members.

### **ChemE Jeopardy at the Annual Student Conference**

- The winners of the nine Regional Conference competitions will automatically qualify for the national competition held at the Annual Student Conference. In addition, up to six regions having at least 10 participating teams will qualify a second team for the national competition. If more than six regions have at least 10 participating teams, then the six regions with the most participating teams will qualify a second team. In the case of a tie the 6<sup>th</sup> qualifying team will be selected randomly. No school will be allowed more than one team in the national competition.
- If the qualifying team(s) from any of the nine Regional Conference competitions are not able to compete in the national competition, then the next place team(s) from that Region will be invited to compete.
- There will be four rounds of competition as follows:

- Domestic preliminary round with up to 4 simultaneous competitions with 3 teams each will be held as needed to reduce the number of teams to 9 for the semi-final round. Note that up to 3 teams, i.e., winners of the regions that participated in the championship round at the previous national competition, will receive preliminary round byes as needed.
- Domestic semi-final round with 3 simultaneous competitions with 3 teams each.
- International championship round consisting of 3 teams that won regional competitions.
- Domestic championship round consisting of the 3 winning teams from the semi-final round.
- The clues & responses will be developed by ChemE Jeopardy subcommittee members.
- ChemE Jeopardy subcommittee members will serve as the Emcees for all rounds of the competition.
- Students from the host school(s) will assist the Emcee to ensure completion of the tasks listed in the ChemE Jeopardy at Regional Conferences section.
- Team members: All members of the team that participated in the regional competition are eligible to compete in the national competition, including students that have received their BS degree since the regional competition. Furthermore, any or all the members of the regional competition team can be replaced with other students, but these replacement team members must be undergraduate students at the time of the national competition.

### **Awards**

Omega Chi Epsilon will give monetary awards of \$200 and \$100 to the 1<sup>st</sup> and 2<sup>nd</sup> place teams at each regional competition. Furthermore, they will give \$400, \$200 and \$100 to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place at the national competition.

## ChemE Jeopardy at Regional Conference Approval Form

Directions: The following form must be completed and emailed to Emily Miksiewicz (emilm@aiche.org) and David Murhammer ([david-murhammer@uiowa.edu](mailto:david-murhammer@uiowa.edu)) at least 2 weeks prior to the regional conference. Either the AIChE Student Chapter Advisor (preferred) or another faculty member must sign in the indicated locations. Note that an electronic signature (i.e., typed) is acceptable.

Conference Region: \_\_\_\_\_

Host School: \_\_\_\_\_

School AIChE Advisor: \_\_\_\_\_

1. I hereby confirm that I have reviewed all of the ChemE Jeopardy game boards that will be used at the regional competition. Furthermore, I have found that clues and responses to be reasonable and have discussed correct alternative responses with the students that will be serving as Emcees.

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Title, e.g., AIChE Student Chapter Advisor, etc.)

2. I hereby confirm that there will be either a faculty member, graduate student or an industrial representative (i.e., a person with a chemical engineering degree) in the room for all games to enforce the rules and ensure that correct alternative responses are identified. Furthermore, they will be given copies of the rules and game boards to review prior to the competition.

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Title, e.g., AIChE Student Chapter Advisor, etc.)

3. Our school will be competing in the regional ChemE Jeopardy Competition: \_\_Yes \_\_No

If yes, then I hereby confirm that the game boards do not contain categories or clues that gives our team(s) an unfair advantage, e.g., trivia pertaining to our school, state, etc.

\_\_\_\_\_

(Signature)

\_\_\_\_\_

(Title, e.g., AIChE Student Chapter Advisor, etc.)