2015 Integration Bee Official Rules

1. Competition is open to undergraduates enrolled at CSU Fresno in the spring 2015 semester. High school students who are enrolled at CSU Fresno in the spring 2015 semester, or who are prizewinners in the High School Integration Bee competition held on Wednesday, April 8, may also compete. **Competition is limited to the first 50 participants to sign up.** If capacity has not been reached by 12:00 noon on Wednesday, April 22, seats will be filled on a first-come, first-served basis until the limit has been reached. *Students, even if signed up in advance, who do not arrive by 6:45 pm will be considered on a first-come, first-served basis.*

2. Competition will be held on Wednesday, April 22, 2015 at 7:00 pm in room S2 109.

3. All integrals in the competition will be indefinite or proper definite integrals of a single variable. Integrals will be presented in view of the audience and participants on a document camera or overhead projector. Correctness will be determined by judges whose decisions are final.

   (a) Only the final answer counts in the determination of correctness. Simplification is not required.

   (b) Final answers may not be expressed in terms of other integrals.

   (c) Definite integrals must be evaluated.

   (d) Correct answers must include "$+C$," if appropriate.

   (e) Absolute values, if required, must be present.

4. **Preliminary Round.** Before the regular rounds begin, there will be at least one Preliminary Round. Participants

   - will sit separately from spectators, in designated seats at the front of the room, and will be provided with paper and pencils.

   - are not allowed to consult notes, books, calculators or other people at any time during the competition.

   - will be shown an integral and will have $1^1/_2$ **minutes** (90 seconds) to write the correct answer in the box on the paper provided.

   - must put pencils down and raise their papers when time is called.

   A participant who does not have the correct answer in the box on his or her paper when time is called will be eliminated from the competition. Passes are not allowed. If necessary, the Preliminary Round will be repeated until 21 or fewer participants remain. Students who advance to the regular rounds will be referred to in these rules as **contestants** or **competitors**.

5. The order in which competitors will compete for each regular round will be determined by lottery; each participant **who signs up by 12:00 noon on Wednesday, April 22 will be assigned a random seating number. Contestants who compete on a first-come, first-serve basis will be seated after the advance-seated students** by drawing a number from a hat or bag after the Preliminary Round. Contestants will sit in the order determined by the lottery. Participants who have been eliminated must sit with the other spectators.

6. Contestants are not allowed to consult notes, books, calculators or other people at any time during the competition. Contestants may not bring anything to the board on their turn.

7. Contestants will each receive one **free pass** ("**pass**") token or ticket.

   (a) The pass may be redeemed during any regular or semifinal round. Passes are not valid during the Preliminary Round(s), Final Round or Run-Off Round.

   (b) A contestant may redeem his or her pass on his or her turn in lieu of completing an integral. He or she will then be called to the board in the next group.

   (c) The pass must be redeemed before time is called.

   (d) One **turn** consists of one completed integral, correct or incorrect. A contestant's turn ends when time is called and he or she does not redeem a pass.

8. **Regular Rounds (Rounds 1-4).** In each **round**, contestants will be called to the white board at the front of the room in groups of three, until all contestants have had one turn. At the end of a round a group may consist of fewer than three competitors. Each group will be presented with a single integral. The contestants will have **2 minutes** to write the correct answer in their designated area on the board and box or circle it. Dry erase markers will be provided. When multiple contestants are at the board simultaneously, contestants will be separated by partitions. Contestants must stay close enough to the board that they cannot see their competitors' work.

   (a) Contestants must cap their pen when time is called. Marks made after time is called will not be evaluated.

   (b) Contestants who evaluate their assigned integral successfully will proceed to the next round. Contestants who do not evaluate the integral correctly and do not elect to use their pass will be eliminated from the competition.

   (c) Integrals will increase in difficulty with each round.

   (d) In the event that all remaining contestants are eliminated in one round, the contestants for that round will be reinstated and the round repeated.

   (e) If only one contestant remains at the end of a round, he or she will be awarded First Prize, ending the Bee; there will be no Second or Third Prizes awarded.

   (f) If two or three contestants remain, they will compete in the **Final Round**.

   (g) If four or more contestants remain at the end of Round 4, contestants will compete in one or more **Semifinal Rounds**.

9. **Semifinal Rounds.** Semifinal rounds will proceed as in Rounds 1-4, except that contestants will have $2^1/_2$ **minutes** to complete each integral.

   (a) Contestants must cap their pen when time is called. Marks made after time is called will not be evaluated.

   (b) Contestants who evaluate their assigned integral successfully will proceed to the next round. Contestants who do not evaluate the integral correctly and do not elect to use their pass will be eliminated from the competition.

   (c) Integrals will increase in difficulty with each round.

   (d) In the event that all remaining contestants are eliminated in one round, the contestants for that round will be reinstated and the round repeated.

   (e) If only one contestant remains at the end of a round, he or she will be awarded First Prize, ending the Bee; there will be no Second or Third Prizes awarded.

   (f) If two or three contestants remain, they will compete in the **Final Round**.

10. **Final Round.** All finalists will be called to the board. They will receive a series of five integrals. The time allowed for each integral is **3 minutes**.

    (a) Each correct answer is worth 1 point. Each incorrect answer is worth 0 points. Passes are not allowed.

    (b) The contestant with the highest score is the winner. The second highest score will receive the second place prize. The third highest will receive the third place prize.

    (c) In the event of ties there will be a **run-off**.

11. **Run-off Rules.**

    (a) Only tied contestants will participate in the run-off.

    (b) Run-off rounds will continue until all ties are broken. The first will proceed as in the Final Round, but with three integrals. If the tie is still unbroken, the next round will be "sudden death." In **sudden death**, scores are updated after each integral. Sudden death rounds will continue until all ties are broken.

    (c) If two finalists are tied for first place, the second place finalist (if present) will be awarded Third Prize. The winner of the run-off will receive First Prize and the other will receive Second Prize.

    (d) If two finalists are tied for second place, the first place finalist will be awarded First Prize. The winner of the run-off will receive Second Prize, and the other will receive Third Prize.

12. Prizes will be as follows:

    First Prize. A $100 Kennel Bookstore gift card and an Integration Bee Champion T-shirt.

    Second Prize. A $50 Kennel Bookstore gift card.

    Third Prize. A $20 Kennel Bookstore gift card.

13. Rules are subject to change without notice and may be amended as needed per announcement before or at the Bee.