



Department of Mathematics and Statistics



Special Colloquium



Mathematical Creativity, Affect, and Identity

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Abstract: Fostering mathematical creativity in the classroom requires intentional actions on the part of the instructor. This talk will detail the teaching actions that students in a creativity-based Calculus I course report as contributing to their sense of creativity. Based on interview data, we found four overall types of teaching actions: Task-Related, Teaching-Centered, Active Learning, and Holistic Teaching. We further explored the data for affective outcomes resulting from these teaching actions. We observed five distinct affective outcomes: Enjoyment, Confidence, Comfort, Positively Evolving, and Negative Feelings. Enjoyment and Confidence were the most reported affective outcomes from the creativity-fostering teaching actions. Currently, we are using these teaching actions as a framework to analyze Calculus students' pre and post mathematical autobiographies. Preliminary results will be shared in this talk.

Monday, Nov. 28, 12:05 – 12:50 pm in 4-2-314