Lectures on Pure and Applied Math

Research Topics in the Mathematical Sciences

Announcing

A Seminar Presentation on February 4, 2016 at 1:30 pm in Lee Hall 301

at The University of New Haven

Dr. Houssein El Turkey

Department of Mathematics and Physics
The University of New Haven

Title: Explicitly Valuing Mathematical Creativity in Proof-Based Courses

Abstract:

The year is 2016 and the landscape of mathematics education is changing. There is Wolfram Alpha, capable of computing double integrals from a cell phone; Chegg which has step-by-step solutions for major textbooks; and whole research fields dedicated to automatic theorem-proving. Therefore, according to the MAA Committee for Undergrad Math Programs (2015), focus in pedagogy may need to be on other humanistic aspects of mathematics. Our research group is interested in one that has been cited as important to prominent mathematicians (Borwein, Liljedahl, & Zhai, 2014): mathematical creativity. Adding to the somewhat small field of creativity in undergraduate mathematics, we have created a rubric, the Creativity-in-Progress Rubric (CPR) on Proving, that can be explicitly used by students and instructors as a formative assessment tool. Details of the construction and use of the CPR on Proving will be presented, as well as general pedagogical suggestions for incorporating creativity in the mathematics classroom.

Further Information

For further information, please contact Angie Domschine at the Department of Mathematics, Office: Maxcy 204, 203-932-7250, ADomschine@newhaven.edu.