Discrete Mathematics Seminar

Time: Friday, 13 February 2015, 2:00-3:00 PM
Room: 237 Derrick Hall
Title: Higher Dimensional Ramsey Theory
Speaker: Dr. Timothy Trujillo, Mathematics Department

Abstract:

In the first half of the talk, I will survey a wide variety of results extending the infinite Ramsey theorem to higher dimensions. In particular, I will discuss the Nash-Williams theorem, the Galvin-Prikry theorem, the Silver theorem and the Ellentuck theorem. In the second half of the talk, I will provide an introduction to topological Ramsey theory and the abstract Ellentuck theorem. Topological Ramsey theory provides a framework for extending basic Ramsey-like principles to their higher dimensional counterparts. The talk will conclude, time permitting, with some new examples of topological Ramsey spaces and open questions related to forming products of topological Ramsey spaces.