Current Course Code and Title	MAS725 Topics in Discrete Mathematics II
Details of Course	**Summary of course content** -
	Aims and objectives To understand the mathematical tools used in the Ehrhart theory of integer point enumeration of polytopes, following the book "Computing the continuous discretely: integer point enumeration in polytopes", Springer, 2008, by M. Beck and S. Robins. This topic is essentially an interplay between the usual continuous volume of polytopes versus the discrete volume of a polytope. We will also use various sections from other books, such as Barvinok's book "A course in convexity", and some lecture notes by the instructor.
	Syllabus Polytopes, Lattices, sublattices, convex analysis, discrete Fourier analysis, continuous Fourier analysis.
Assessment Please specify if components are individually assessed or group assessed	-
	Total: 100 %
Hours of Contact/Academic Units	4 AU
Instructor and Co-instructor (if any)	-
Class size	-
Academic Year and Semester/Trimester	-