1056-C1-1236 **Alan Levine*** (alan.levine@fandm.edu), Department of Mathematics, P.O. Box 3003, Lancaster, PA 17604. *The Mathematical Development of Music.*

The development of music throughout history may be viewed as proceeding from the continuous to the discrete - that is, from the continuum of pitches created by a vibrating string or air column to the discrete subsets, or scales, that form the basis of most music. This is the opposite of the development of mathematics which, according to Kronecker, began with discrete integers and proceeded to the continuum of the real numbers and beyond. We will discuss how this idea is used as the basis for a general education course on the science of music that the author teaches. (Received September 21, 2009)