



**Speaker:** Brian Shourd  
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Monday, February 13, 2012  
4:15 PM  
231 Hayes-Healy Hall

**Title:** Basic Representation Theory of Finite Groups

**Abstract:**

Representation theory is an approach to solving many types of problems, where an algebraic object (such as a group) is "represented" as a set of endomorphisms of a given vector space. In finite dimensions, it allows one to study the elements of the algebraic object as though they are matrices. One of the easiest examples of representation theory is representations of finite groups. This talk will give the basic definitions required to begin such a study, and show some initial results and proofs, so as to give a (very brief) introduction to the types of problems that can be solved. If there is time, I will also cover some more advanced results that can be proven simply using representation theory.