

School of Mathematics

Course 424 — Group Representations

2008-09

(Optional JS & SS Mathematics, SS Two-subject Moderatorship, SS Theoretical Physics)

Lecturer: Dr. T.G. Murphy

Requirements/prerequisites:

Duration: 19 weeks

Number of lectures per week: 3

Assessment: One assignment counting for 10% of the final mark.

End-of-year Examination: a 3-hour end of year examination.

Description:

Group representations arise wherever there is *symmetry* and *linearity*. They provide perhaps the most important single tool in the application of Mathematics to Physics and Chemistry. They are also an important resource in several branches of Pure Mathematics.

The course will be in 3 parts.

1. Representations of Finite Groups
2. Representations of Compact Groups
3. Representations of Lie Groups

Notes on the course may be found in <http://www.maths.tcd.ie/pub/coursework/424/>.

March 31, 2009