

School of Mathematics

Course 424 — Group Representations

2006-07

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

Lecturer: Dr. T.G. Murphy

Requirements/prerequisites:

Duration: 21 weeks

Number of lectures per week: 3

Assessment:

End-of-year Examination: Hopefully, this course will be examined in 3 parts, one examination covering each term's work

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. These will be examined separately, after each part.

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/>.

October 5, 2006