

# MA321 – Representation theory

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Office hours: Thursday 4-6pm.

## Teaching

- Every week, Monday 16:20-18:10, Room304 Teaching building 3
- Even weeks, Wednesday 16:20-18:10, Room304 Teaching building 3

## Textbook

- Textbook: Gordon James and Martin Liebeck, Representations and characters of groups, Second edition.
- Reading material: William Fulton and Joseph Harris, Representation Theory.

## Prerequisites

Linear Algebra I, II  
Abstract Algebra

## Teaching Assistant

XIE Yilin Email: 11930521@mail.sustech.edu.cn

## Grading policy

20% Homework + 30% Midterm + 50% Final

## Course contents

1. Basic concepts of representations, and modules.
2. Group rings, matrix algebras.
3. Reducibility, and Maschke's theorem.
4. Schur's Lemma and applications.
5. Normal subgroups, and Clifford theorem.
6. Tensor product.
7. Character theory and its applications.