

**CHEM 762 – Instructor: Dr. Michael Gau, 14 classes**

**Introduction to X-ray Crystallography course, Graduate level course**

Class Structure for Spring 2024

- Course is aimed to introduce students to small molecule X-ray crystallography.
- Focus will be on theory and background of X-ray crystallography.
- Lecture style course with handouts each class.

Tentative Schedule:

**Class 1 and 2** – Introduction to crystallography (history and basic concepts).

**Class 3 and 4** – Symmetry (unit cells, space groups and symmetry operations)

**Class 5 and 6** – Data Collection

**Class 7 and 8** – Structure factor

**Class 9 and 10** – Phase problem

**Class 11 and 12** – Structure solution

**Class 13 and 14** – Structure refinement and case studies

Outline of Assignments & Assessments

- Weekly worksheets/labs
- 10 points per weekly worksheet
- Midterm and Final exam will be worth 100 points