

## Preparing for the CHM 3150L Final Exam

A written final will be administered in week 15, after check-out and course evaluations. It covers basic lab techniques and spectroscopic techniques. A periodic table, an IR correlation chart, and NMR tables will be provided, but please **bring a calculator** to help solve mass spec problems. Spectroscopy questions may include theory, sample preparation, prediction of spectra, and interpretation of spectra.

Lab Notebook	Running a Reaction	Purification & Analysis
Reagent Table calcs.	Handling reagents, solvents	Recrystallization
Molar equivalents	Measuring solids, liquids	Melting point
Limiting Reactant	Glassware	Distillation (Simple & Fractional)
Theoretical Yield	Stirring and heating reactions	Refractive index
Percent yield	Addition funnels	Thin Layer chromatography (TLC)
Purpose of workup steps	Refluxing a reaction	Column chromatography
Identifying hazardous materials	Extraction (including acid-base)	Gas chromatography
Waste disposal	Drying agents	IR (including sample prep)
	Filtering (gravity vs. vacuum)	NMR (including sample prep)
	Rotary evaporator (rotovap)	Mass spectrometry