Suggested program to the practice of Preparative Organic Chemistry II (KV4ES4)
Zsuzsa Majer

The practical course is for undergraduate students with the goal to give

- Using the basic knowledges of the organic preparative methods in the preparation of complex organic molecules (for example: fruit-esters, Claisen condensation, reduction, Grignard reaction,

- Isolation and purification technics of natural product - application of the thin layer-, column chromatography; occasionally the HPLC (paprika pigments, lycopene and carotinoids from tomato paste, essential oils from spices, etc.)

- Dyes: synthesis of para red, dyeing of fabrics

- structure elucidation by UV and IR spectroscopy

- qualitative analysis of functional groups in organic chemistry: physical constants, ignition test, Lassaigne'test, solubility test and functional group identification.

- use of the literature of organic chemistry

- Technics:
    - Repeating: crystallisation, filtration, solvent extraction, drying of liquids, thin layer chromatography, determination of boiling- and melting point, gas chromatography
    - New methods: atmospheric-, vacuum- and steam destillation, coloumn chormatography, structure elucidation with NMR, UV, IR

- Literature:

VOGEL's: Textbook of Practical Organic chemistry
(B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell)
Longman Scientific & Technical

D.L. Pavia, G.M. Lampman, G.S. Kriz, R.E.Engel
Introduction to ORGANIC LABORATORY TECHNIQUES
Saunders College Publishing, Philadelphia

K.L. Williamson
Macroscale and microscale Organic Experiments
D.C.Health and Company