A Course in Practical Alchemy is a distance learning course in Chemistry that leads learners to a better understanding some selected parts of Chemistry through their own work on chemistry experiments. It tries to motivate learners toward further studies in Chemistry and Science at once.

The course consists of nineteen lessons – one lesson per fortnight. Each lesson contains instructions for three or more home chemistry experiments on a given subject. All the education and communication between learners and tutor takes place on a web page of the course using e-mail and other communication tools supported by Internet.

This thesis presents the development, implementation and evaluation of the course including the course materials and student solutions.