

## THE FIRST PART OF THE COURSE

The lectures are based on Chapters 1-5 of the book. A fairly accurate list of the pages and topics covered is below (numbers refer to pages):

- conditional expectation and rules associated with it (14)
- notation (27–28)
- matrix algebra with partitioned matrices (28-30)
- method of moments estimation (30–34)
- method of ordinary least squares (33–37)
- 54-67 (to the second paragraph of the last page; e.g. linear transformations of the regressors!)
- 68–69 (the FWL theorem)
- 73–75 (goodness of fit of a regression)
- 86-107
- 111-115 (eg. over- and underspecification)
- 132-133
- 135-136 (theorem 4.1 and its proof)
- 138-144.
- 150-155
- 190-191 (Wald's statistic and asymptotic normality)
- 196-199 (White's t test statistic; the associated contents of the following pages are excluded).

Prerequisites include

- length of a vector (43)
- space spanned by the columns of matrix  $X$  (49-50)
- linear independence (52-53)
- invertibility of the matrix  $X'X$  (53)
- t and F distributions (136-7) and
- laws of large numbers and central limit theorems (146-150).