Derivatives Lab

Final Project

due December 31, 2012

1. Submit the complete set of Python programs you coded this semester as a single archive.

2. Choose a stock for which you can find recent time series data as well as quotes on European options.

   (a) Analyze the time series: How good is the assumption of normally distributed log-returns? Estimate the volatility of the stock.

   (b) Determine a suitable risk-free interest rate for pricing the options for which you find quotes.

   (c) Price the option with an algorithm of your choice for all maturities and strike prices for which you can find data to compare. Comment on the result.

   Your submission should contain a discussion of the choices you made and of the result. You should also submit the Python code as a single runnable file along with all input data files.