Day 3 Session 1 Black-Scholes framework (Sultan)
The much-celebrated Nobel prize winning Black-Scholes model is introduced. The assumptions, derivation of PDE and famous pricing formula are studied. The groundwork for this session is covered in the stochastic calculus lecture. Although solving the Black-Scholes PDE is lengthy, a brief outline of its solution method is covered. European options and binaries will be considered.

Day 5 Session 2 Non-linear Black-Scholes (Sultan)
A relatively new approach to pricing in the Black-Scholes context is to assume one or more of the parameters to lie in a given range – hence the method is called the uncertain parameter framework. The method is presented for uncertain volatility, dividends and interest rates.