Syllabus and Reference:

MA374 FINANCIAL ENGINEERING LABORATORY [0-0-3-3]
Prerequisites: MA271 or equivalent
This course will focus on computational aspects of the financial market models studied in MA271 and MA373 such as CAPM, binomial models, Black-Scholes-Merton model, interest rate models and asset pricing based on above models. The implementation will be done using MATLAB/C++/R/python.
Texts:

1. Y. Lyuu, Financial Engineering and Computation, Cambridge University Press, 2002.
2. D. Higham, Introduction to Financial Option Valuation: Mathematics, Stochastics and Computation, Cambridge University Press, 2004.

References:

1. P. Glasserman, Monte Carlo Methods in Financial Engineering, Springer, 2004.

Assessment:

Weightage for weekly assignments: 3% marks for each of 11 assignments = 33%

Depending on the direction from the academic section of IIT-Guwahati, **we will conduct mid and/or end-semester-exam or a viva or both** for the remaining 67%.