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**Morteza Shafii-Mousavi\*** (mshafii@iusb.edu), Mathematical Sciences, PO BOX 7111, South Bend, IN 46634-7111. *Financial Mathematics in a Mathematically Accurate but Accessible Way.*

The paper describes how financial mathematics program developed and taught at IUSB. The program includes courses M551 Market and Asset Pricing and M451 Mathematics of Finance and Interest Theory developed for new BS in Actuarial Science, BS in Applied Mathematics, and MS in Applied Mathematics and Computer Science. Courses cover introduction to the theory of option pricing, the Black-Sholes theory, time value of money, rate of return on an investment cash flow sequence, utility functions and expected utility maximization, mean variance analysis, value at risk, optimal portfolio selection, optimization models, and capital asset pricing models. Courses emphasize modeling stochastic phenomena to reinforce students' understanding of the applications of probabilistic models, series, differential equations, and technological tools applied in financial models. This paper presents courses' highlights including: 1) case study projects designed to solve financial problems; 2) the use of internet to collect financial data and analysis; 3) OR software used to optimize portfolio performance; 4) Microsoft Spreadsheet to simulate option pricing; 5) Microsoft EXCEL applied for statistical analysis of large data; 6) course evaluation system; and 6) course work used for program assessment. (Received June 30, 2006)