Annual Report on Program Student Learning Outcomes Assessment

Program: Master of Science in Mathematical Finance
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1. List the learning outcomes for the program:

- We develop graduates who understand *Financial Theory*, including time value of money, risk preferences, market completeness, the principles of asset pricing, Arrow-Debreu securities and risk-neutral asset valuation

- We develop graduates who understand *Core Financial Instruments, Products, and Market Structures*, including financial contracts and products, securities, options and futures exchanges, credit derivatives, financial institutions and financial regulations

- We develop graduates who understand *Financial Risk Management*, including risk measures, debt instruments, credit and credit risk, and derivatives

- We develop graduates who understand *Relevant Mathematical Methods*, including in-depth knowledge of core mathematical methods for building financial models

- We develop graduates who understand *Relevant Statistical Methods*, including in-depth knowledge of the core statistical tools needed for calibrating financial models

- We develop graduates who understand *Relevant Computing Methods*, including in-depth knowledge of the core numerical algorithms and computer programming tools that are widely used for solving financial models